Adobe Photoshop For Beginners

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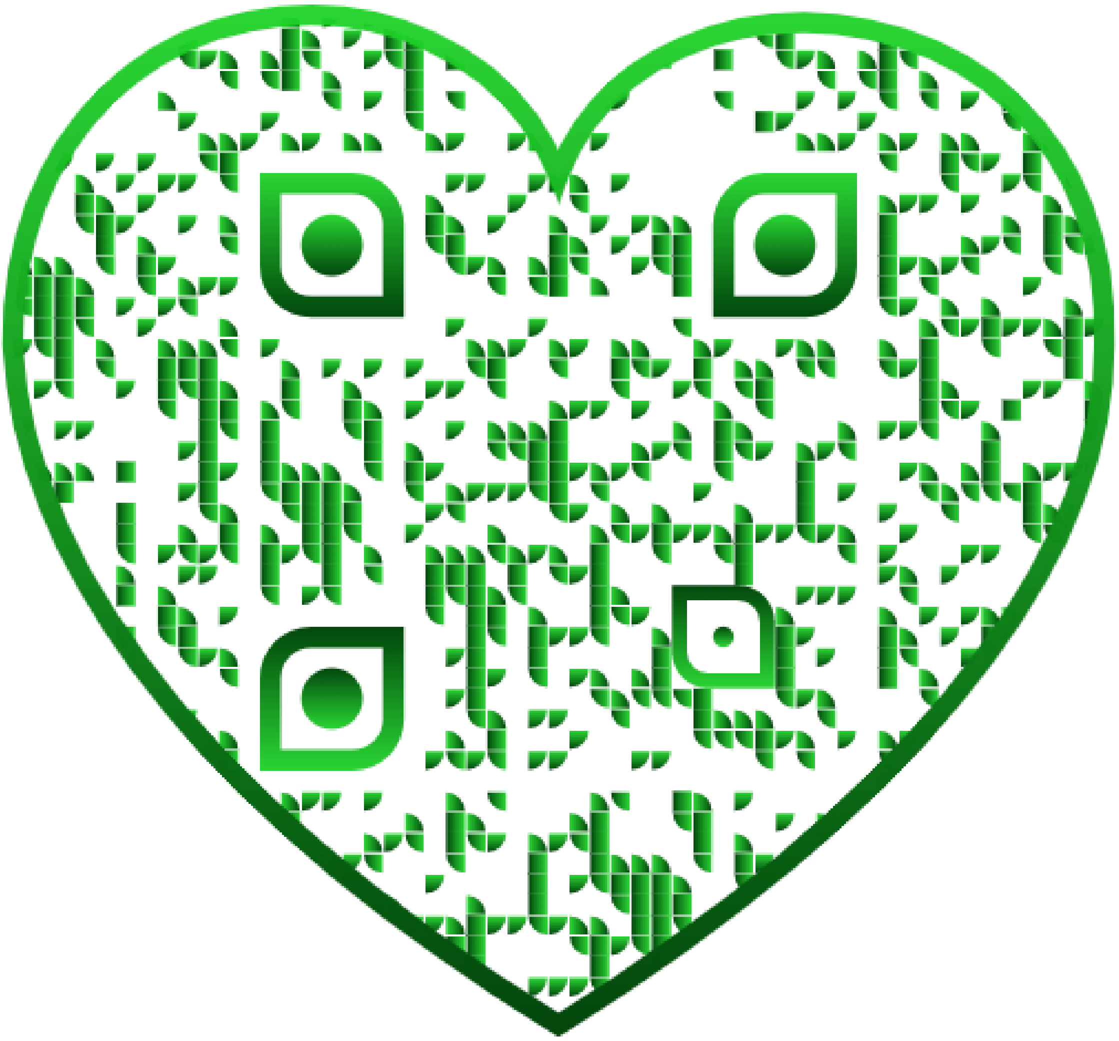

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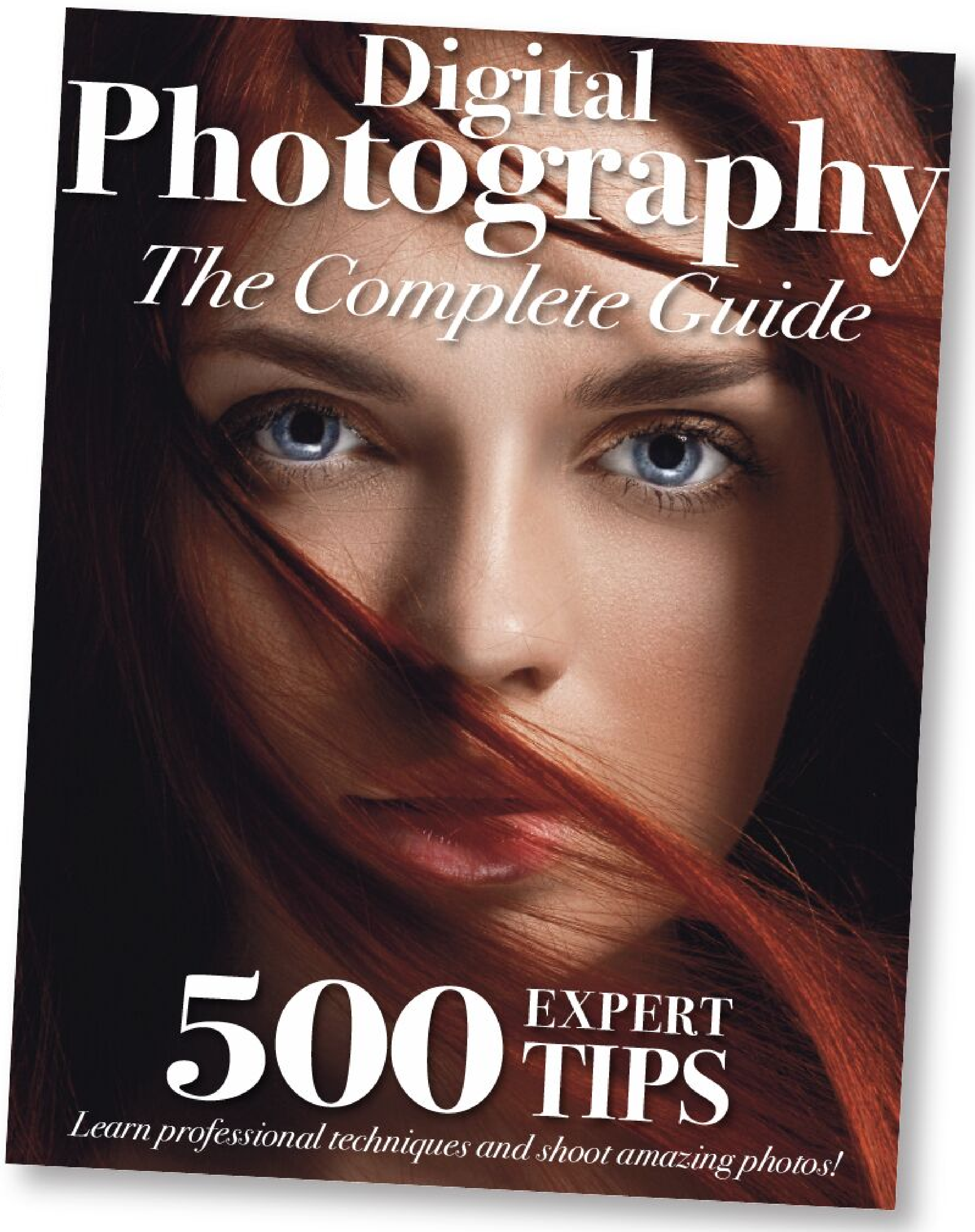
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Adobe Photoshop
For Beginners

Adobe Photoshop For Beginners is the ideal way to get started with this amazing photo editing software. This independent guide is crammed with helpful guides and step-by-step fully illustrated tutorials, written in plain easy to follow English. Over the pages of this beginner's user guide you will clearly learn all you need to know about getting to grips with Photoshop's user interface and basic photo editing features. With this unofficial instruction manual at your side no problem will be unsolvable, no question unanswered as you learn, explore and enhance your skills.

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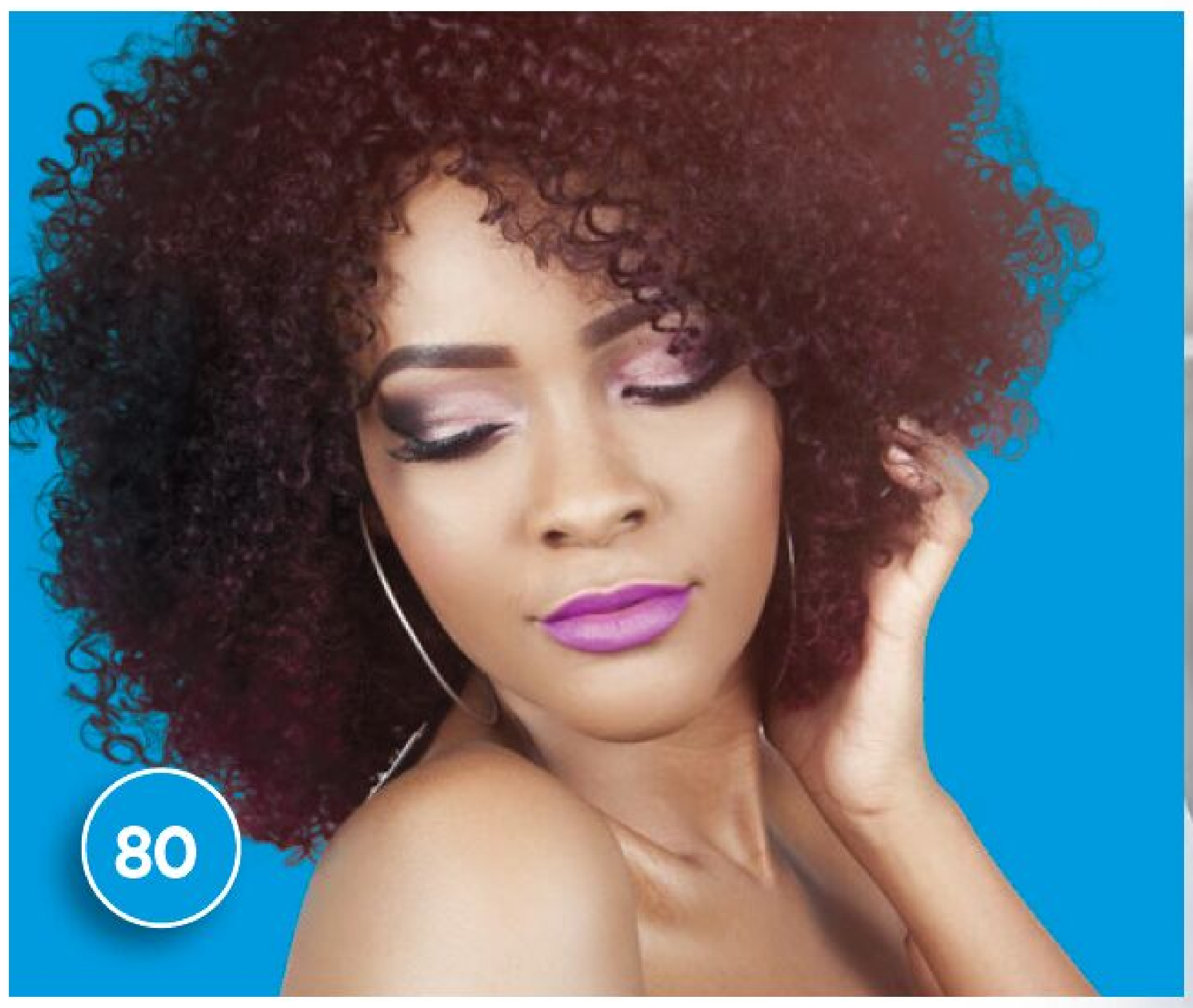

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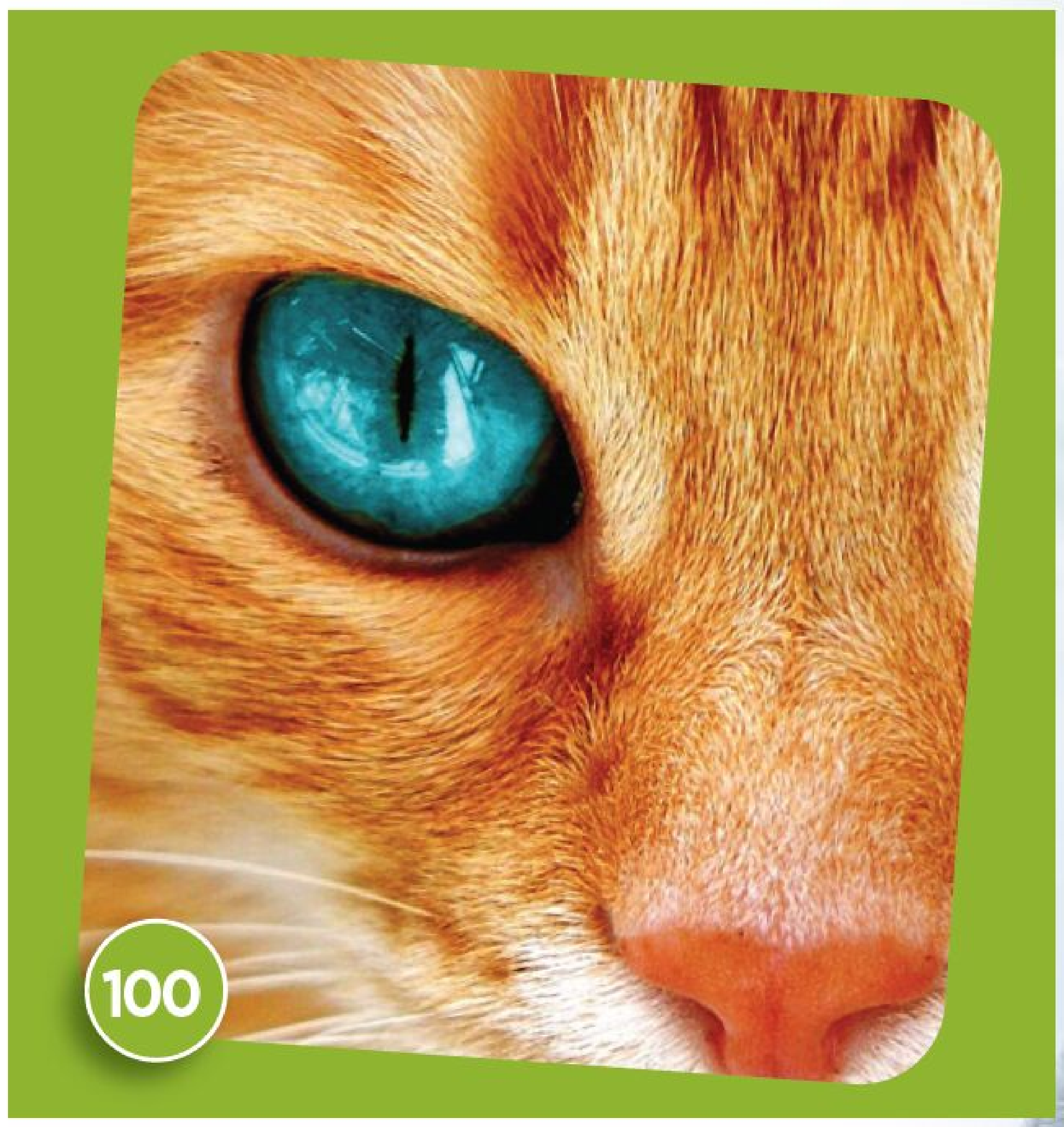


Add the power of Photoshop to your digital workflow and let your creativity flourish.

Adobe has created a tool that lets us all run wild with our ideas, but allows us to turn them into tangible works of art and creative design. With Photoshop, if you can imagine it, you can create it.

Updates and Improvements

After Photoshop’s latest update. Let’s have a look at some of the features available to you.

Check out these useful new features and tools

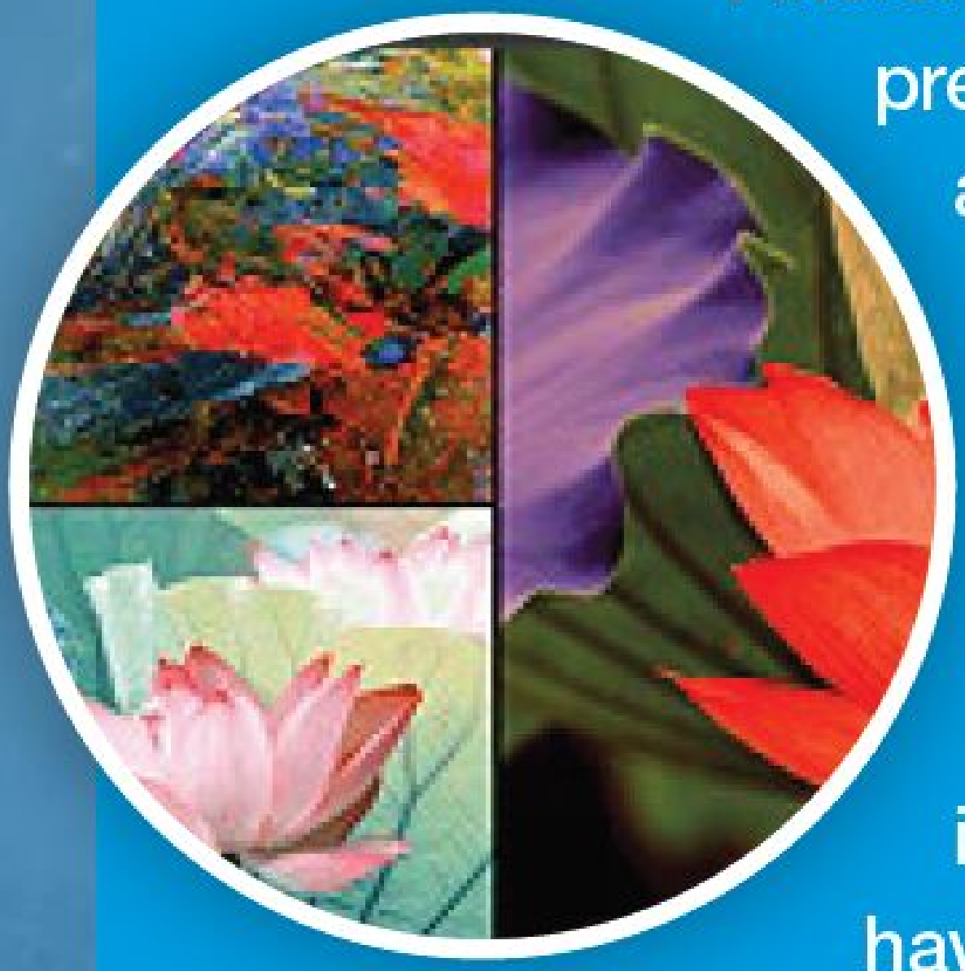
October 2021 saw the release of the latest version of Photoshop 2022 which at the time of writing is in release version 23.1.0. It has many new improvements over those tools first offered in the 2020 update. Certain additional new tools and updated features are still in beta but available for us to have a play with. So play we will. A number of the new beta filters have to be downloaded and there are also a number of tools that are as yet unavailable but Adobe ask you for input and submit reasons why a filter like this is useful to you. At first glance, some of the tools new to this version look a little gimmicky but others are actually quite powerful. With a little refinement, there are some great potential features, so let's get cracking and show you a few of the more notable ones, key among which are the improvements and additions to the Neural Filters.

Can You Update?

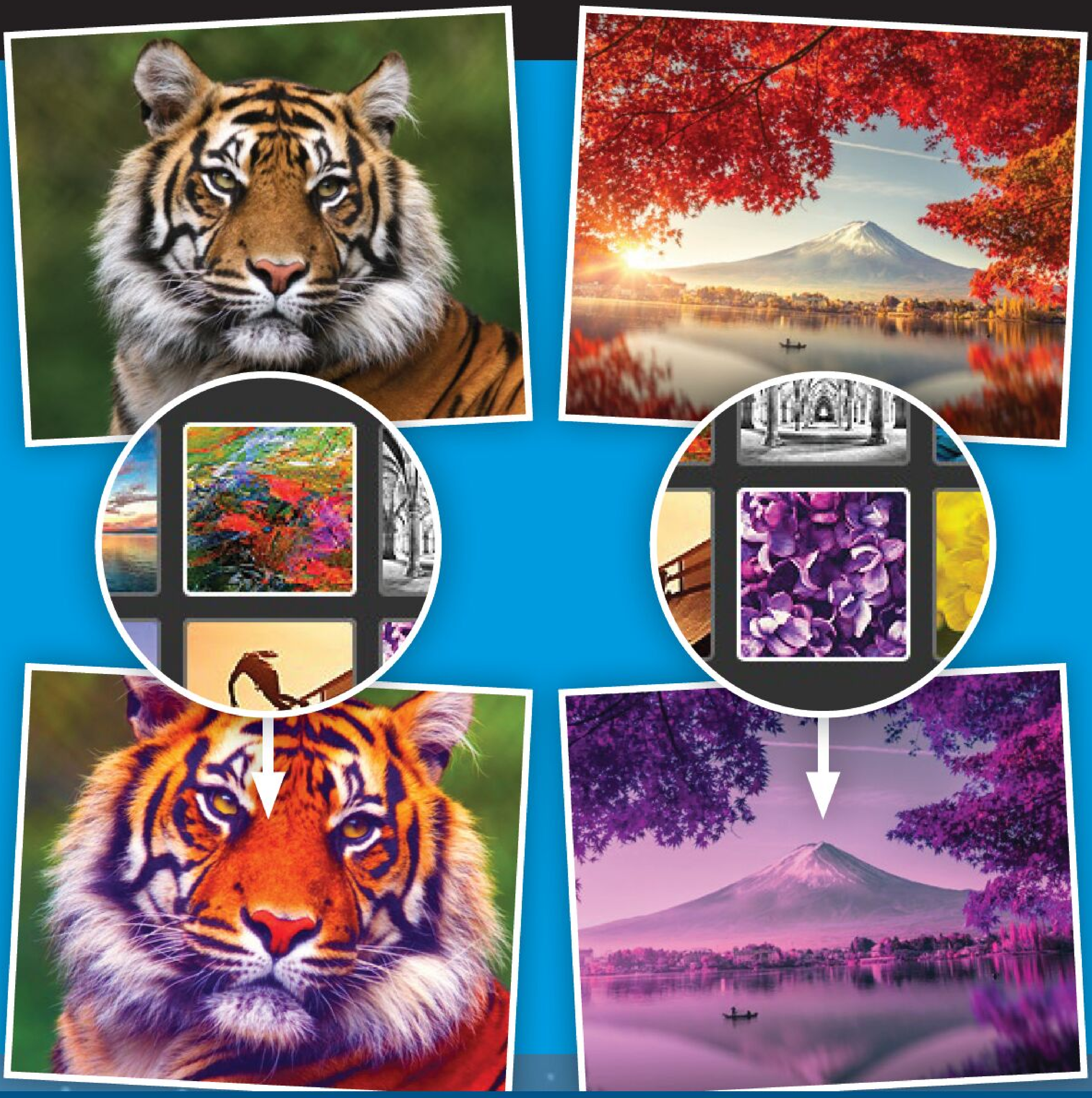
Although many reacted against the decision by Adobe to move their products to a subscription model, what came out of it was the fact that you didn't have to buy a new product or go through an upgrade path to get your hands on all the latest features in any given application whenever a new version came out. Photoshop is a good example of how you can at least benefit from the latest bug fixes and the addition of new tools by dropping coin every month to keep up to date.

It has to be noted, if you are an owner of a pre-2012 Mac, you may find that you are in a bit of trouble. One of the Photoshop editing machines we use is a late 2012 iMac and when version 2021 of Photoshop was released, we couldn't update to that version without updating its OS from High Sierra 10.13 up to Catalina 10.15. As far as we are aware, 2011 and older machines cannot update any further than version 10.13 which means you may not be able to use Photoshop 2021 or later. So as it stands, the 2012 iMac is still compatible with current versions of Photoshop - for now.

Color Transfer



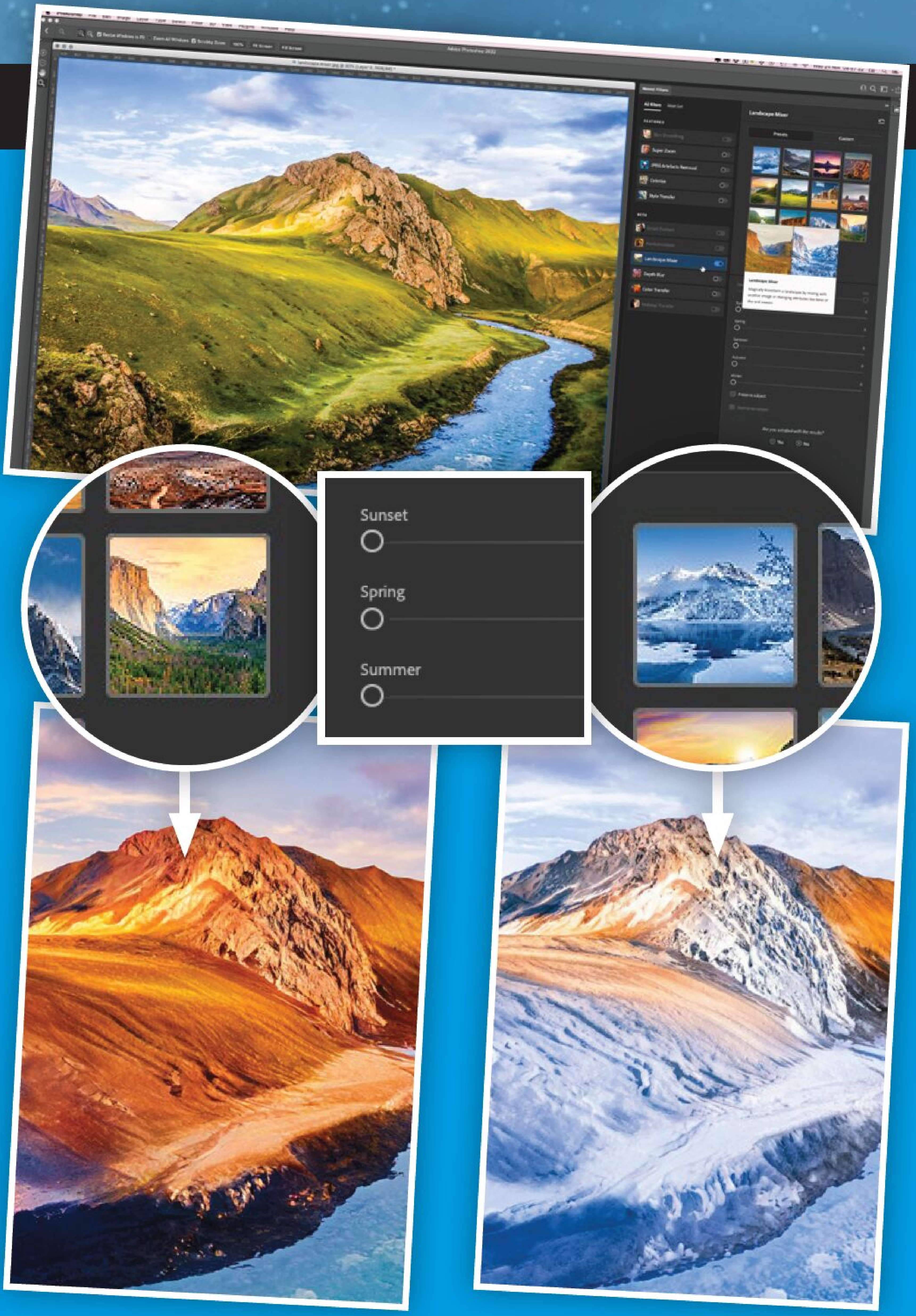
This is a Neural Filter and is found under Filter > Neural Filters. This one is currently still in Beta so presumably it has some development and refinement to go before becoming a fully-fledged featured filter. Essentially, it is a means by which you can use the colour palette of an entirely different image and apply it to your own image in various creative ways. We have an image of a tiger and when you activate the Color Transfer filter, you are presented with a number of presets to get you started. The presets are a series of images that have various tonal and colour qualities that can be applied to your own image. We clicked on one of the more garish examples to see what it would give us. Results will vary based on your own target image and also the Color space you use. You have the additional option to adjust Saturation, Hue and Brightness if required. We also tried a second image of a Japanese landscape image for comparison. If you keep the Color space in Lab mode, you have a few more adjustment options available. When you have something you like, you can choose the Output method and create a new layer containing the newly enhanced image.



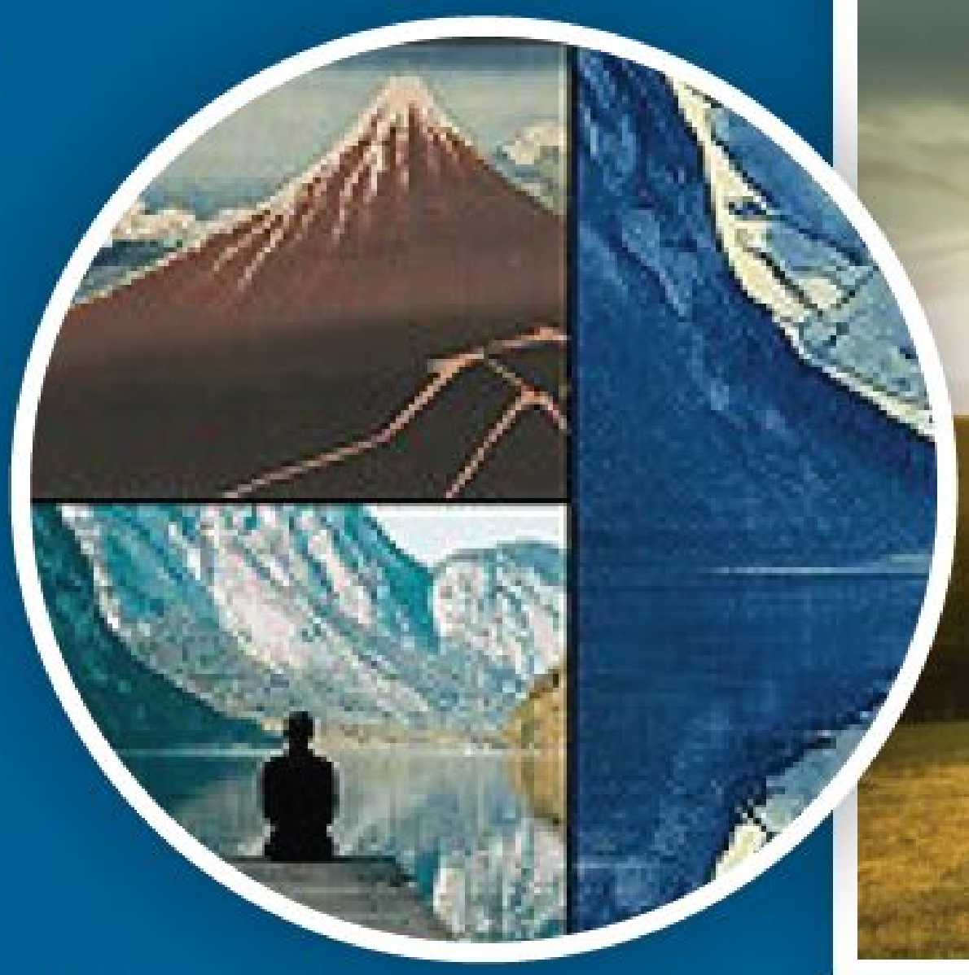
Landscape Mixer

Another new filter currently in Beta added to the list is the Landscape Mixer. It seems to promise an almost magical ability to transform one landscape image into something else entirely. Imagine a green valley with a river running through it, converted into a harsh tundra wasteland with the click of a button. Well, that's what the Landscape Mixer says it can do. In our example its claims can be put the test with an image of a lush river valley. When you fire up the Neural Filters, click the Landscape Mixer button to view the options available. There are a few presets that range from sunny meadows to wintery mountain scenes. Below are a number of sliders that control the strength of effect applied and seasonal effects that can make your image look more wintery or indeed more summery. Since our original image is a green valley, we clicked on the first winter preset. It took a while to convert the image and it did a passable job of making it look more like a winter's day. Adding more of the Sunset slider's influence on the scene certainly turned it into a sunnier landscape and then we tried 55% on the Winter slider. The effect it had was to roll an instant ice age across the landscape. It was definitely eye-catching.

The Landscape Mixer looks like it has the potential to be a very powerful tool. Be aware thought that unless you click the Preserve Subject button, new image elements are merged into your image to achieve the effect you are after. This essentially overwrites the base image with new pixel data. That in itself is fine since you can output the new mixed image to a new layer, but if you look closely at the resulting image, it looks soft and muddy in places and quality does take a hit. Also be mindful of the fact that processing these effects can take time. If your original image is very large, you may have a long wait for the effect to be applied. It's still fun though!

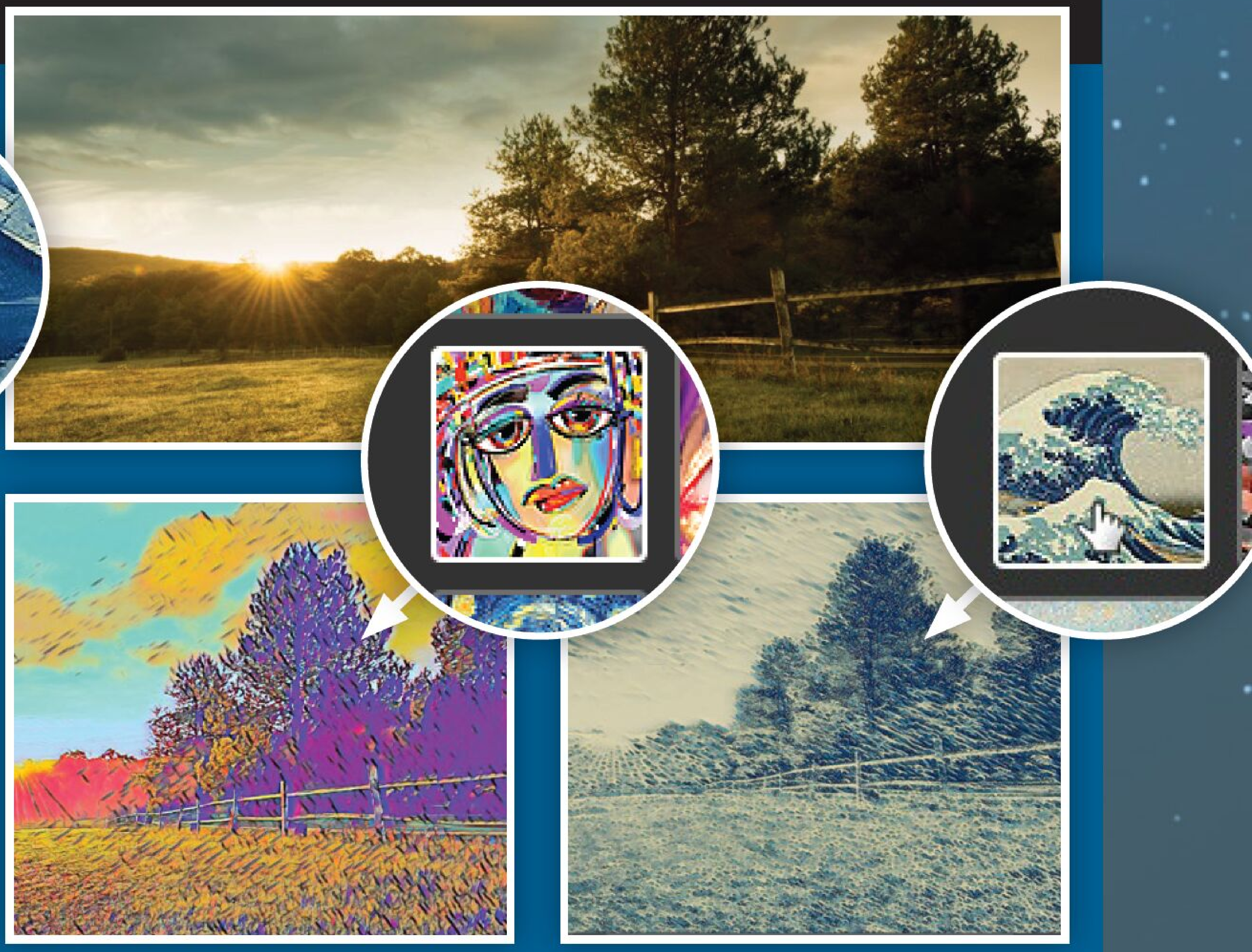


Style Transfer



If you fancy altering the visual style of an image by applying the colour, tone and artistic style of another very different image, then Style Transfer is for you. Take a normal image and open the Style Transfer filter. You will see a number of images under the Artist and Image Styles menu and the Custom menu where you can source your own examples. You can choose any of these and their particular visual appearance will be transferred to your target image. At its simplest, you could take an image and if you choose an image style where there is a very colourfully sketched styling, it will attempt to apply the style to your photo.

We tried this with a simple landscape and chose a very colourful naive-style image of a face with bright colours. The effect was very dramatic to say the least, but you can use the sliders provided to dial back the effect if required. You can experiment and apply all sorts of weird and wonderful effects by choosing different Style options. The results can be output to new layers in a number of ways including a Smart Filter layer with all the effects combined within it.



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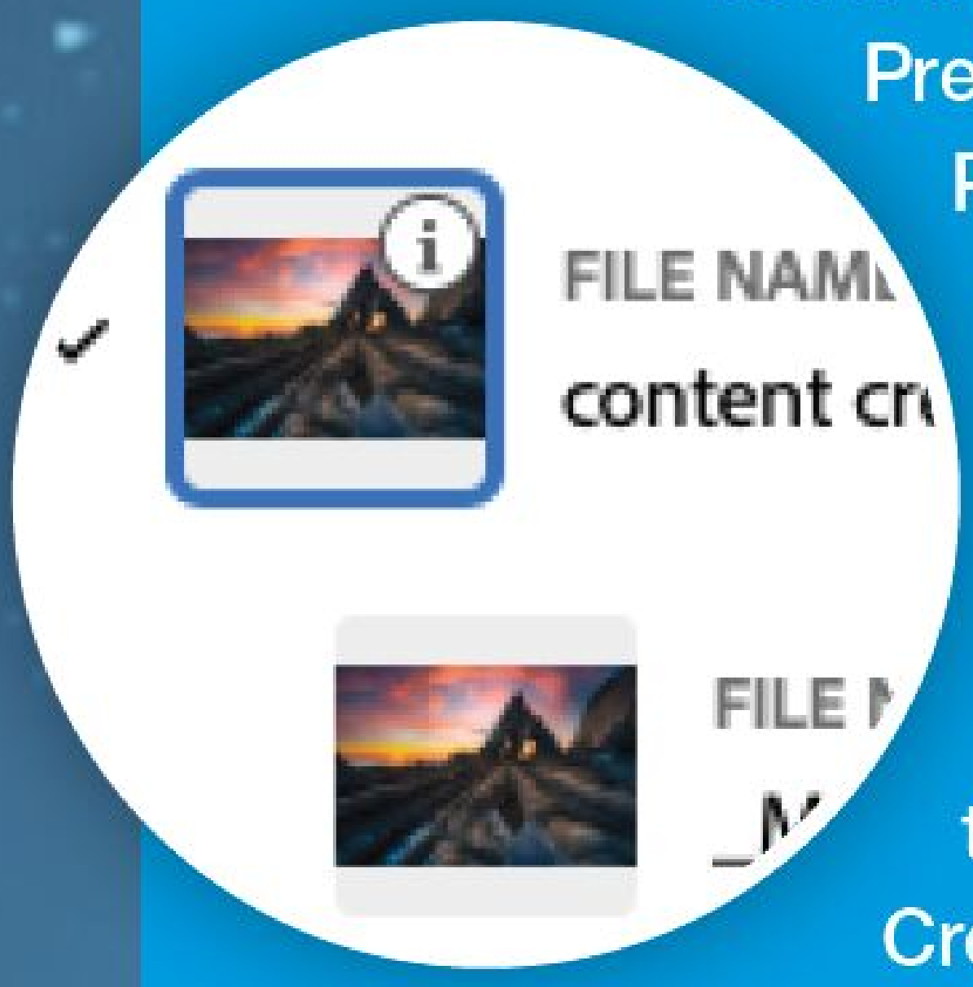

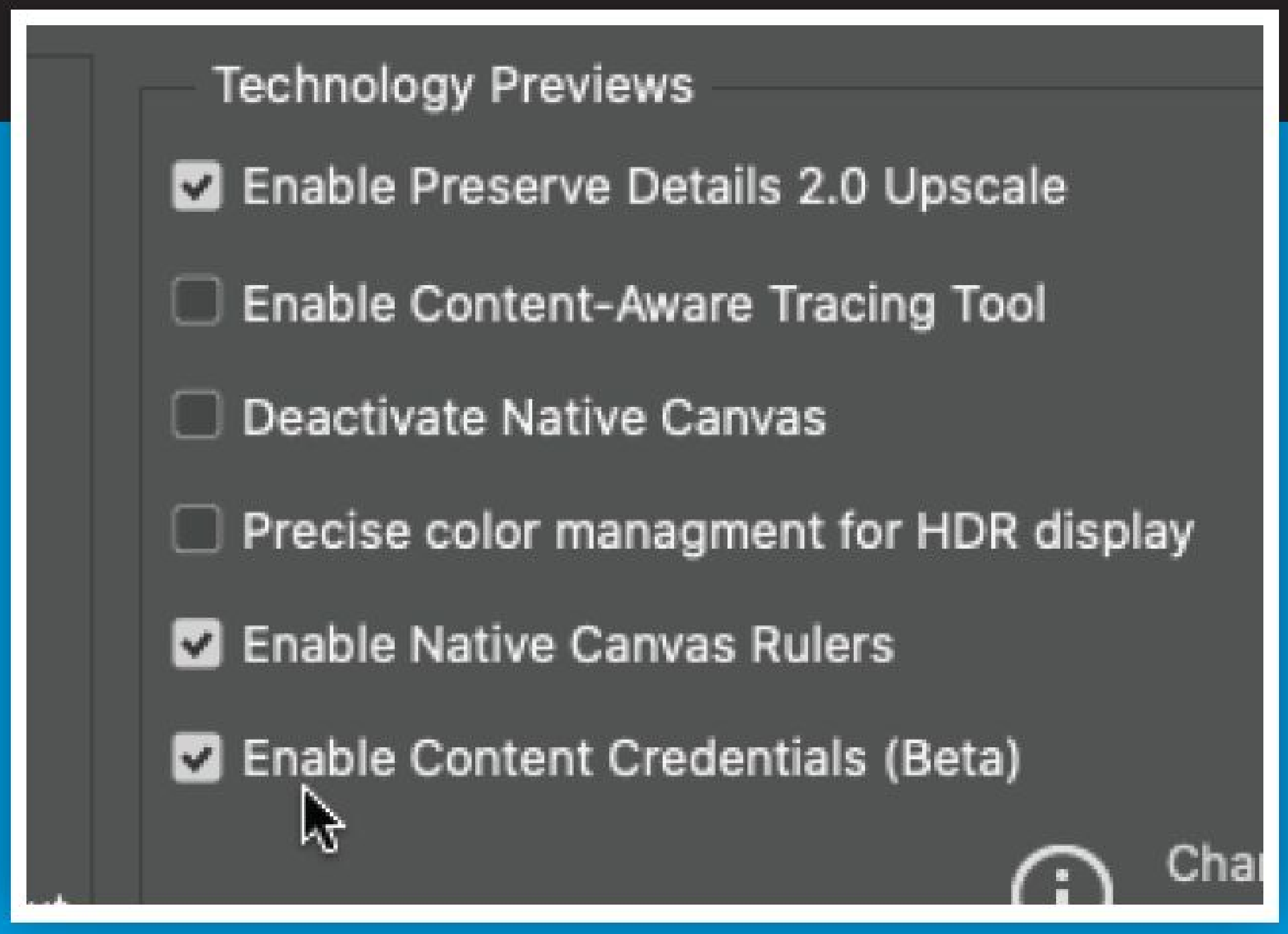
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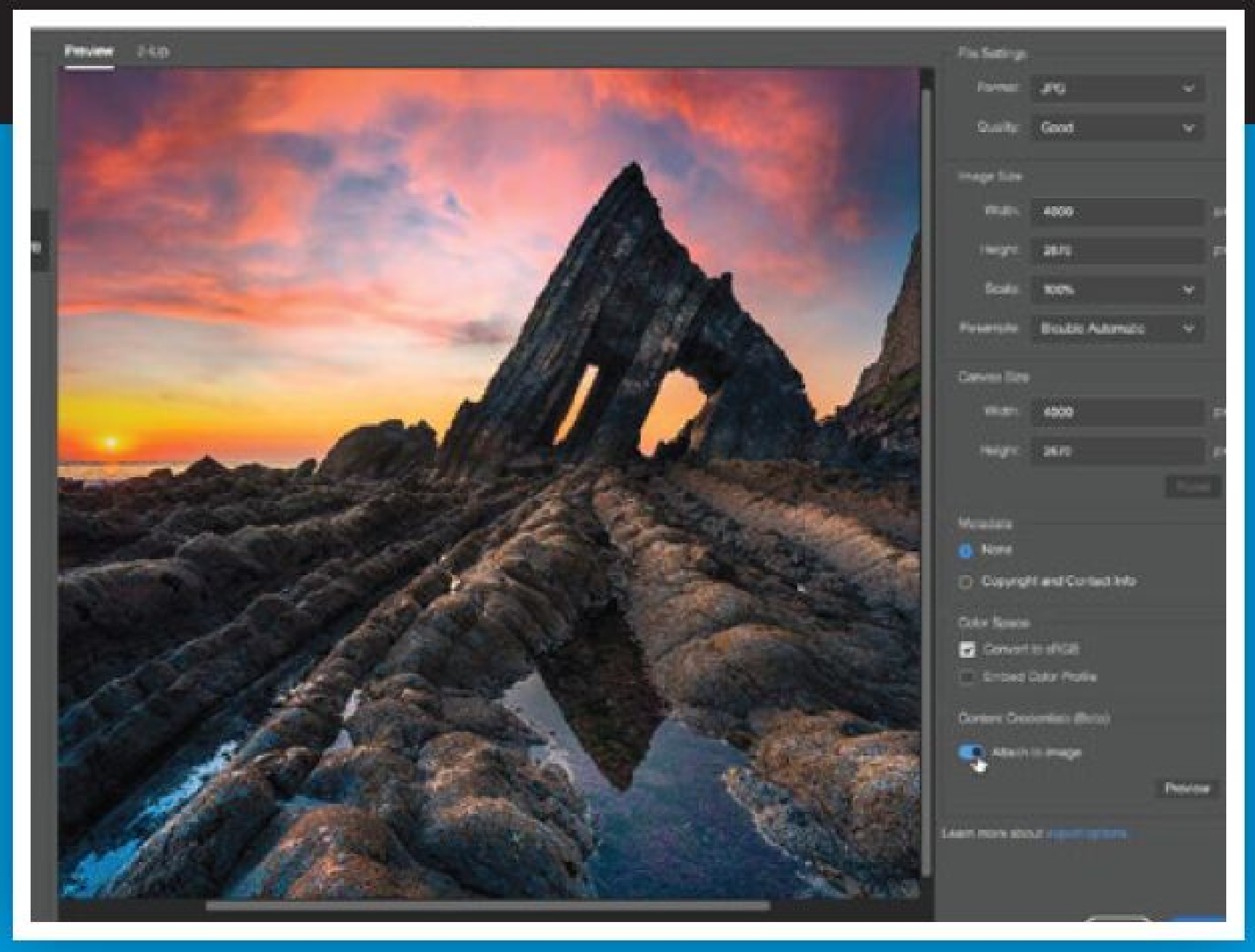
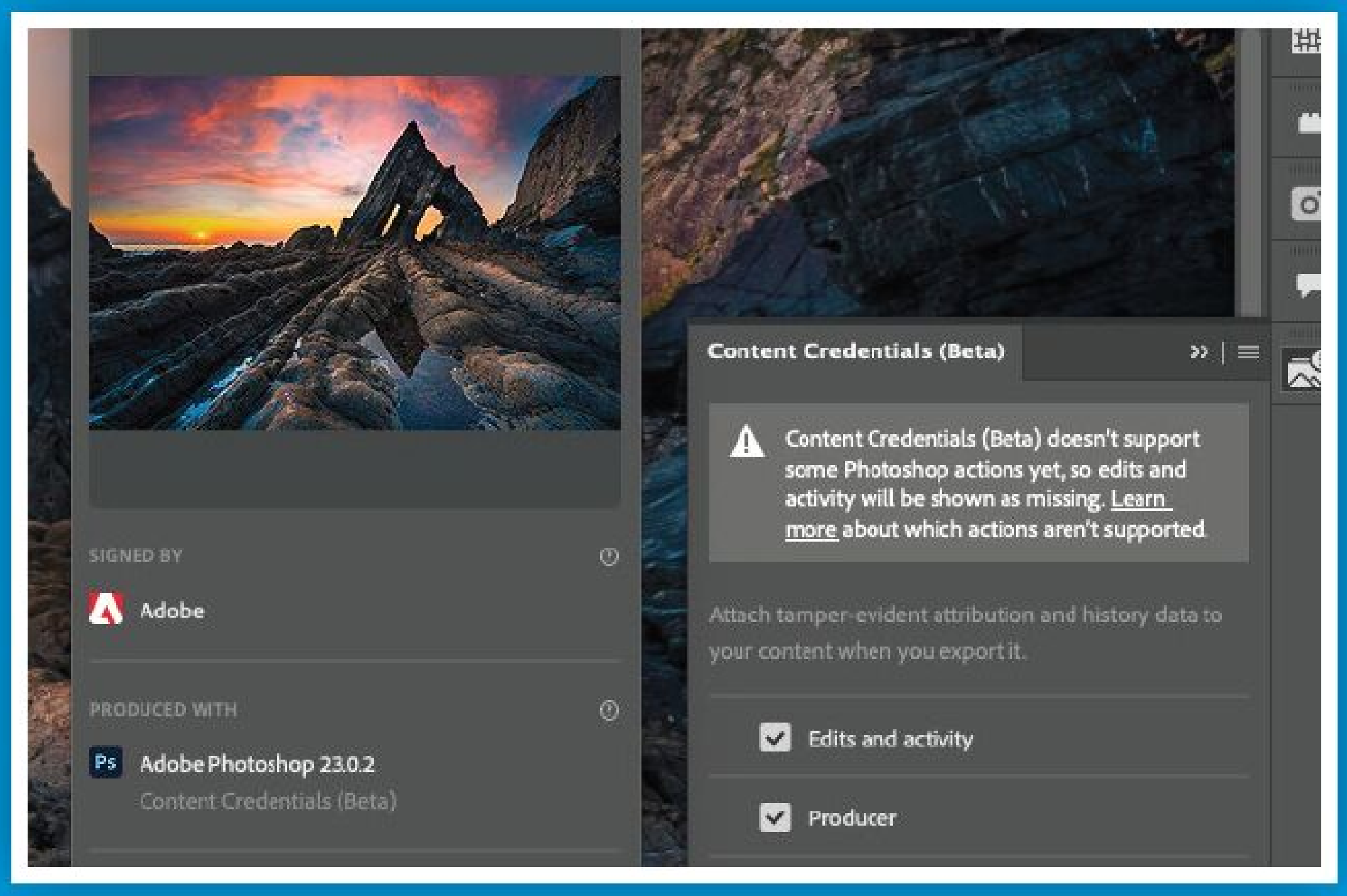
☐ Enable Content-Aware Tracing Tool
☐ Deactivate Native Canvas
☐ Precise color managment for HDR display
☑ Enable Native Canvas Rulers
☑ Enable Content Credentials (Beta)

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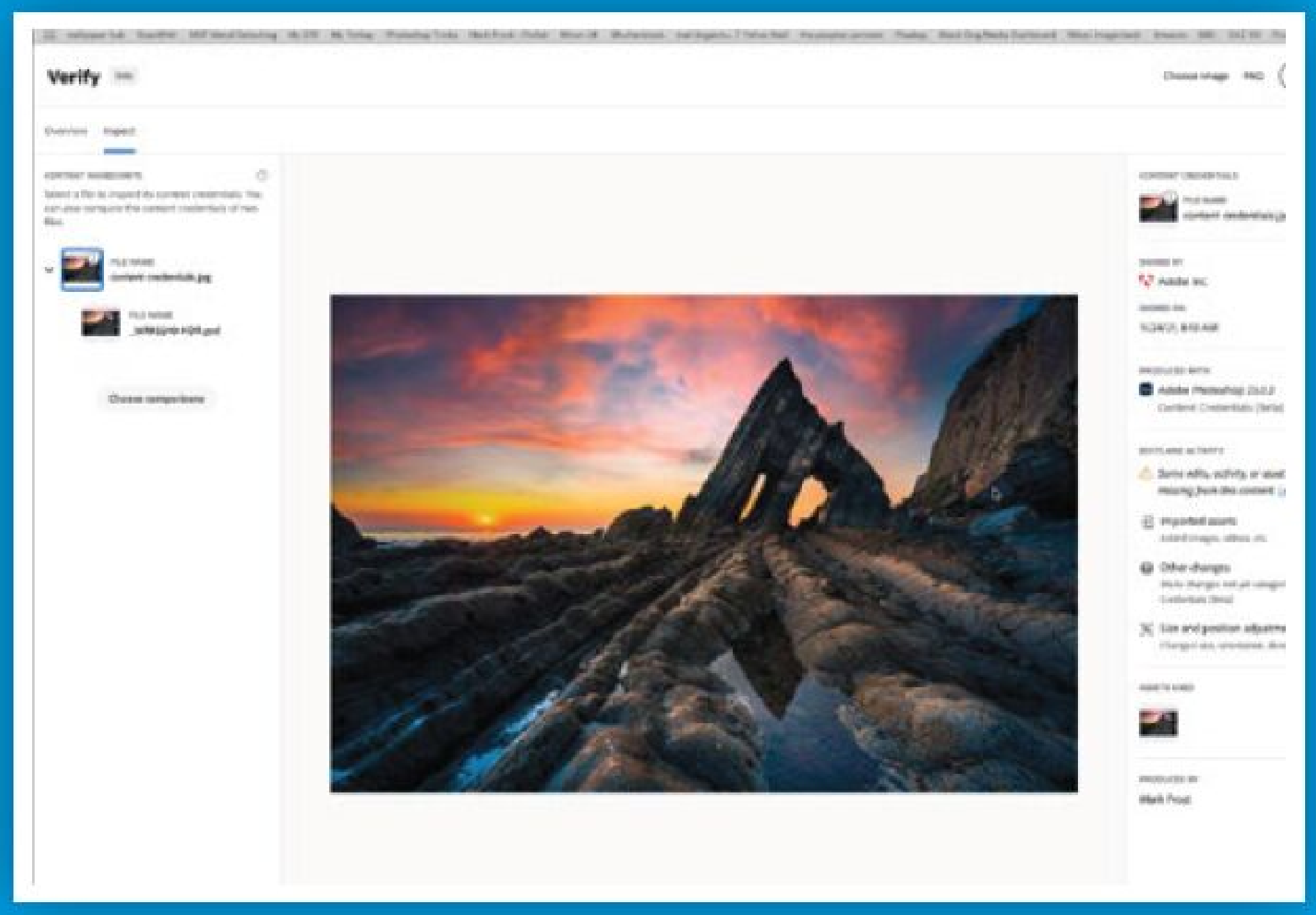
☑ Edits and activity
☑ Producer



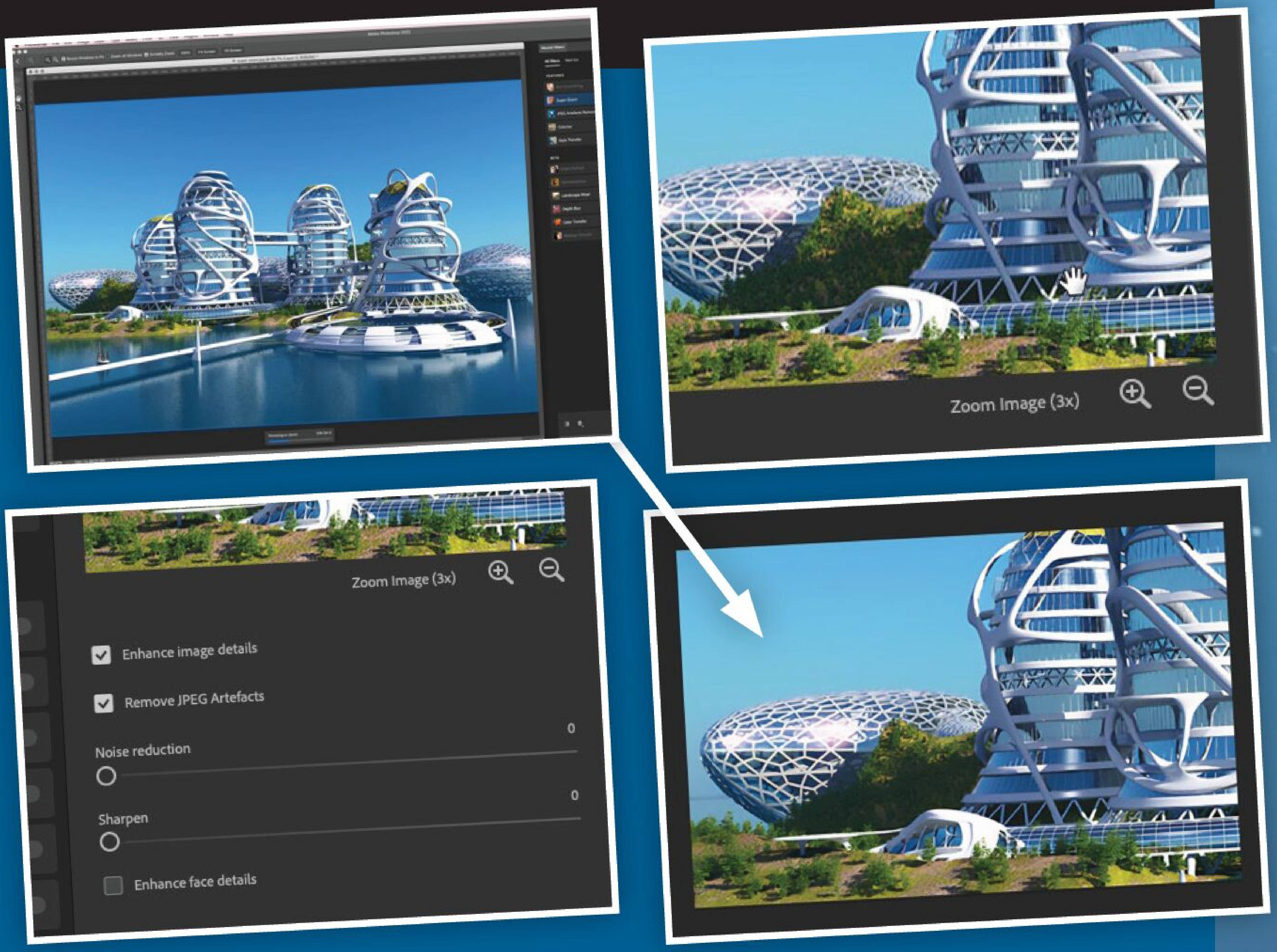
This new feature is still in Beta phase and not active when you first update to Photoshop 2022. If you go to Photoshop > Preferences > Technology Previews, you can click the Enable Content Credentials (Beta) button to activate it. You will need to restart Photoshop to see it. Content Credentials is a means by which you can attach useful image information to the file such as assets use, edits made as well as attribution info. With Content Credentials now active, open a PSD document with various layers and adjustments and go to Window > Content Credentials (Beta). The Content Credentials panel will open showing a few options to determine what information is saved with your document, such as Edits and Activity and Producer. If you click the Preview button, you can see what data can be viewed. Note that since it is still in Beta, certain edits and activity are not compatible yet.

Now, if you go to File > Export > Export As, you can open the export window and choose the various file settings and format you want your image to be saved as. Under Content Credentials, if you click the Attach To Image button, your data will be exported with it. You may ask yourself how you know for sure that any data is attached. Luckily, you can go to https://verify.contentauthenticity.org to confirm. When you're on the site, click the Choose Image button in the top right and you can drag and drop your file. We exported our document as a jpeg, which we dragged into the verify box. After dropping the image, you will see all the data that you attached to your image displayed on the screen. That's great, but there is a flaw that has yet to be addressed.

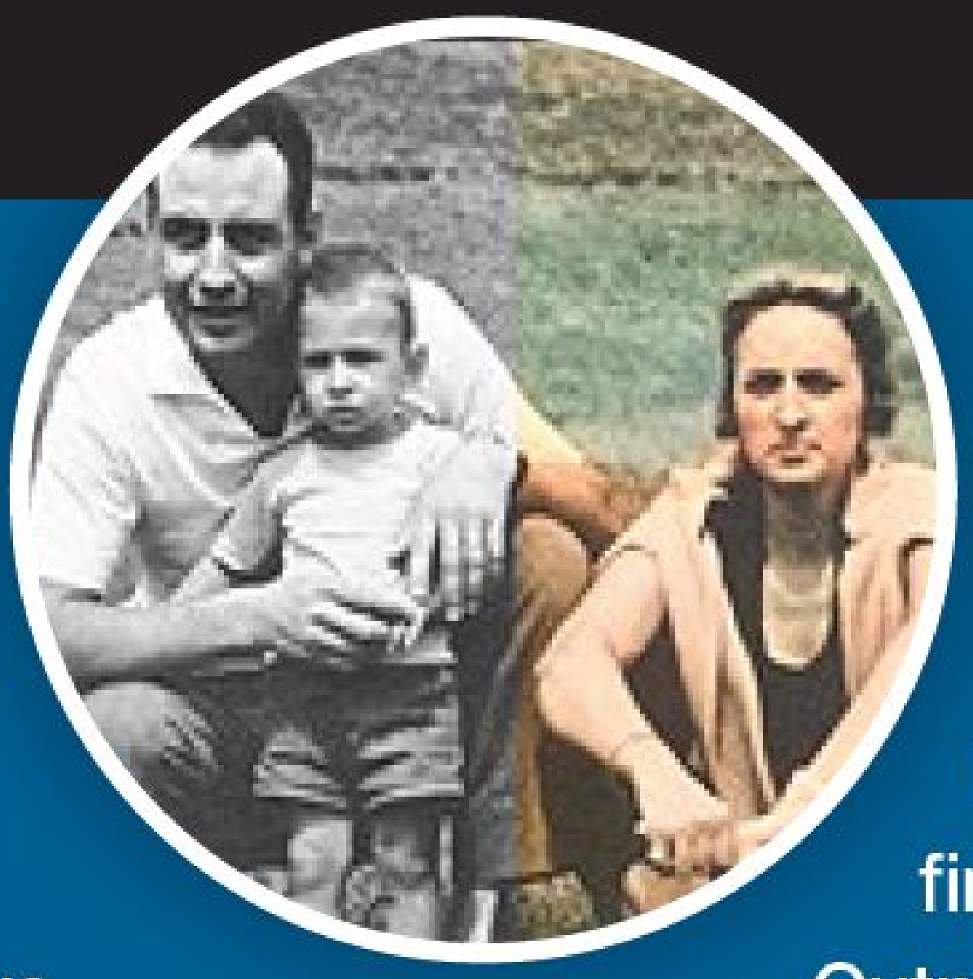
If you go back to Photoshop and open the exported image with the attached data and make a simple edit, such as Levels and save the image, something problematic arises. Take this newly saved image and go back to the verify site and try that version. This time all the data is gone. Clearly, there is more work to do on this particular tool, but hopefully a future update will take care of it.

Super Zoom

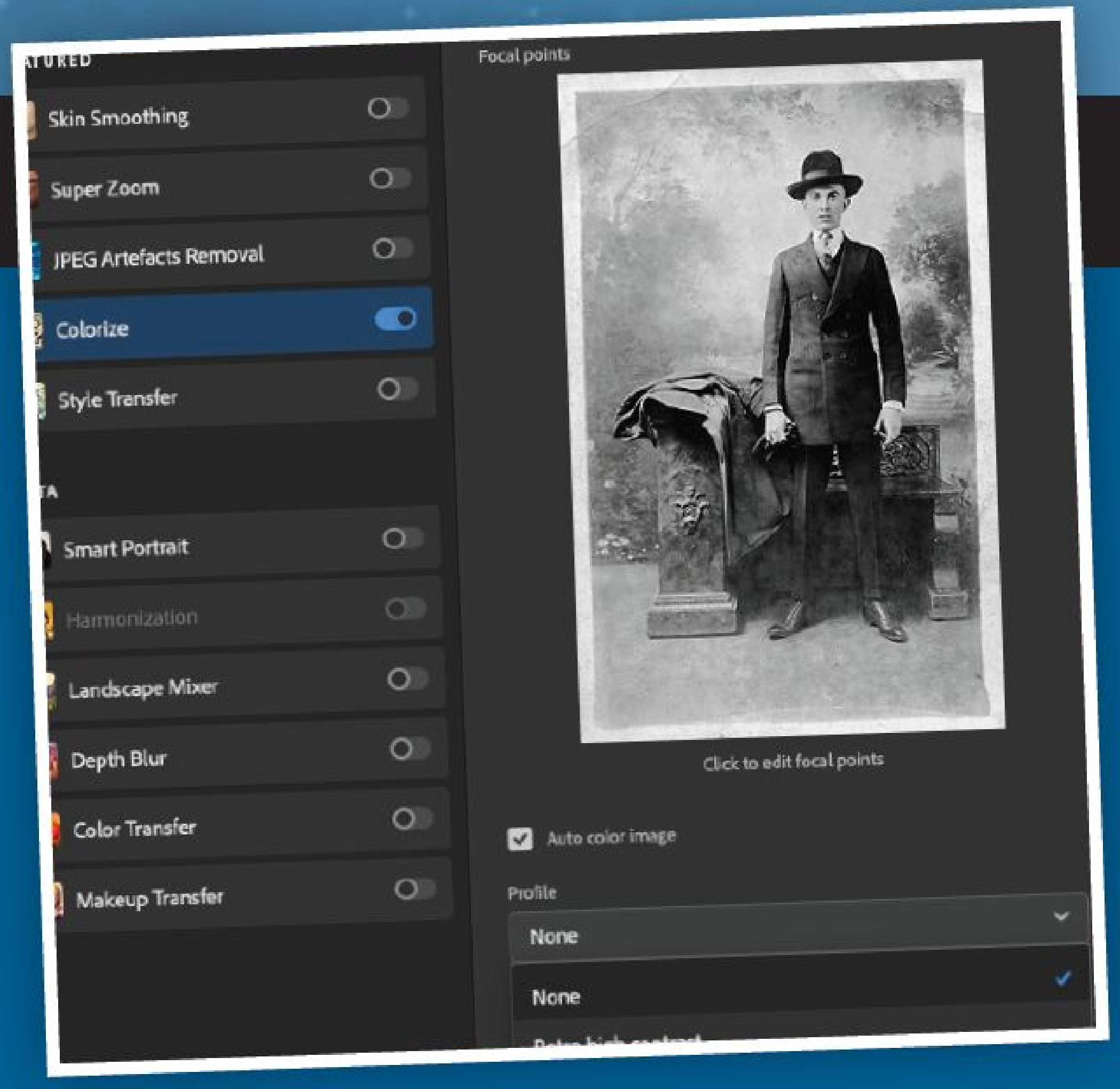
This is designed to enable you to enlarge a photo by zooming in, cropping and letting Photoshop add additional pixel data to mitigate the loss of detail and resolution. If you have an original photo and you want to enlarge a portion of it to fit within your original picture dimensions, you can use the Super Zoom feature. Choose the amount of magnification by clicking the plus (+) or minus (-) magnifying glass icons. In our example, we enlarged the image by 3x. The resulting image can be moved around in the small preview window so you can compose it how you want and then, when ready, click the OK button to create a new layer with the magnified section of your image in it. As with all forms of image interpolation and resampling, the more magnification you apply, the more pixel data has to be added and the final result will suffer as a consequence. Also, if you are starting with a very small original image, this will only compound the issue if you enlarge it too much.


Zoom Image (3x)
☑ Enhance image details
☑ Remove JPEG Artefacts
Noise reduction 0
Sharpen 0
☐ Enhance face details

Colorize

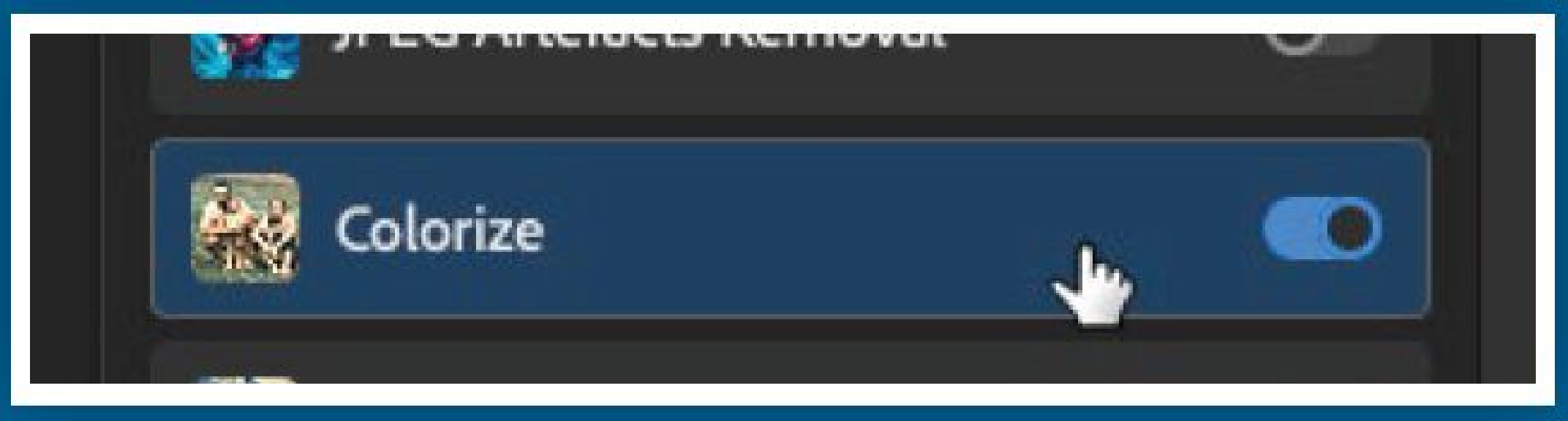


This is a Featured Neural Filter that has had a few tweaks since its initial release in the 2021 version of Photoshop. It is a tool designed to help you add colour to old black and white photographs. You have a few options to choose in order to colour your image. You can choose Auto Color and the filter will decide what colours to apply based on what it deems right after analysing the image. You can also use colour profiles such as Retro High Contrast and others. If you prefer, you can click on areas of the image in the preview window and apply local groups of colours to suit your tase. You can, for instance, make the background yellow and the suit blue. You can also alter the colour balance as well as Saturation, Hue, Color Artefact Reduction and Noise Reduction. Rather than just outputting a final colourised image, you can click the Output as new Color Layer button and your colour choices will be saved in a new layer with the Color Blend Mode instead. This is useful if you want to mask out certain areas in this new colour layer or alter what's already there.

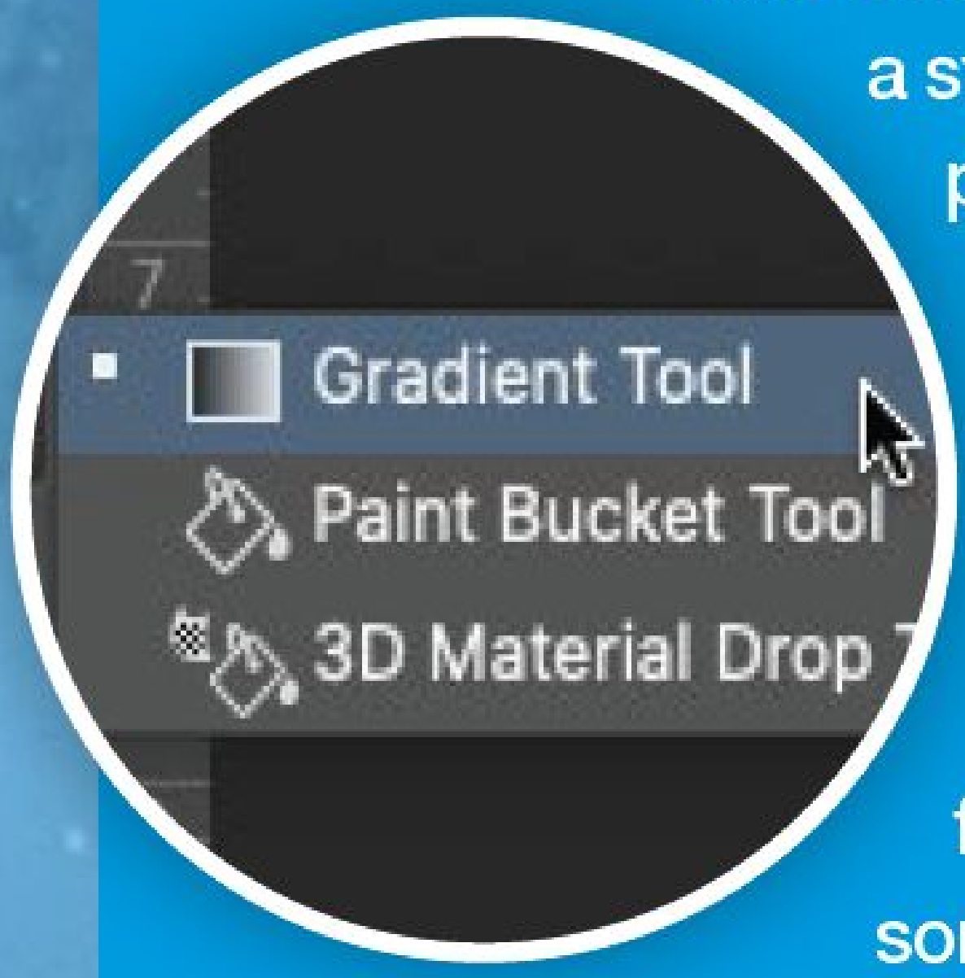


☑ Auto color image

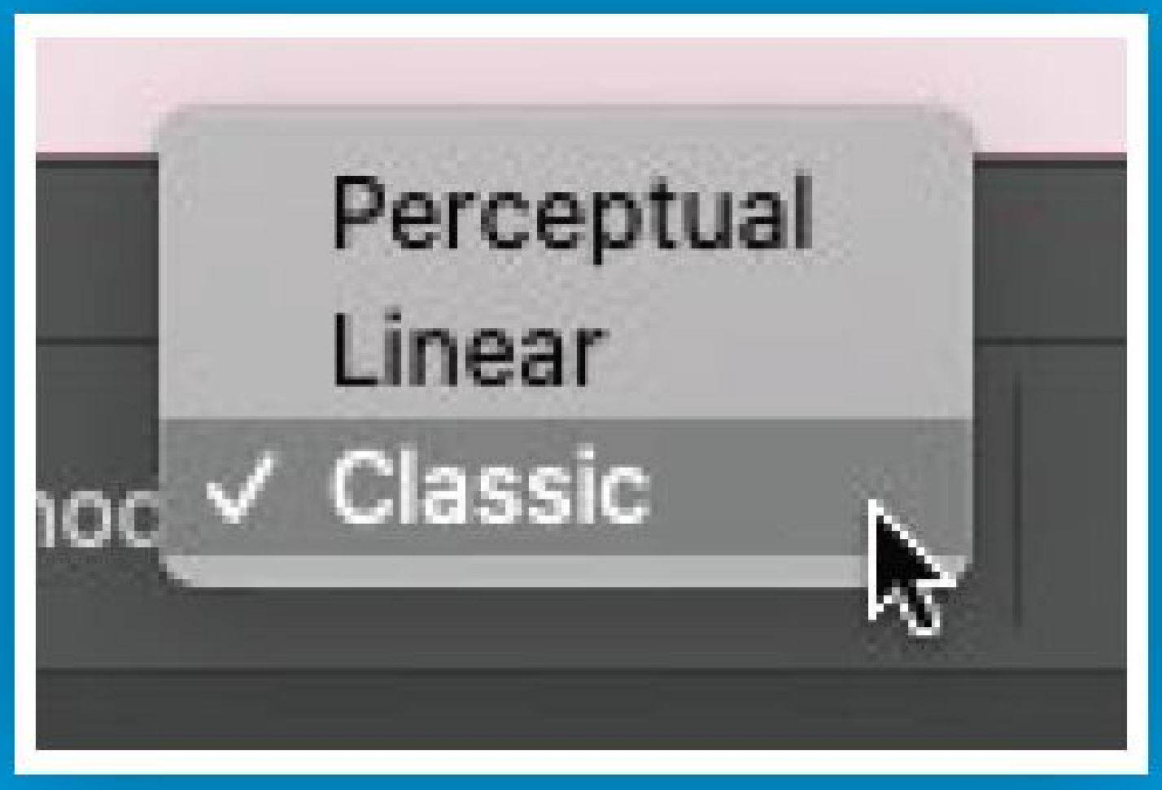
Profile: None

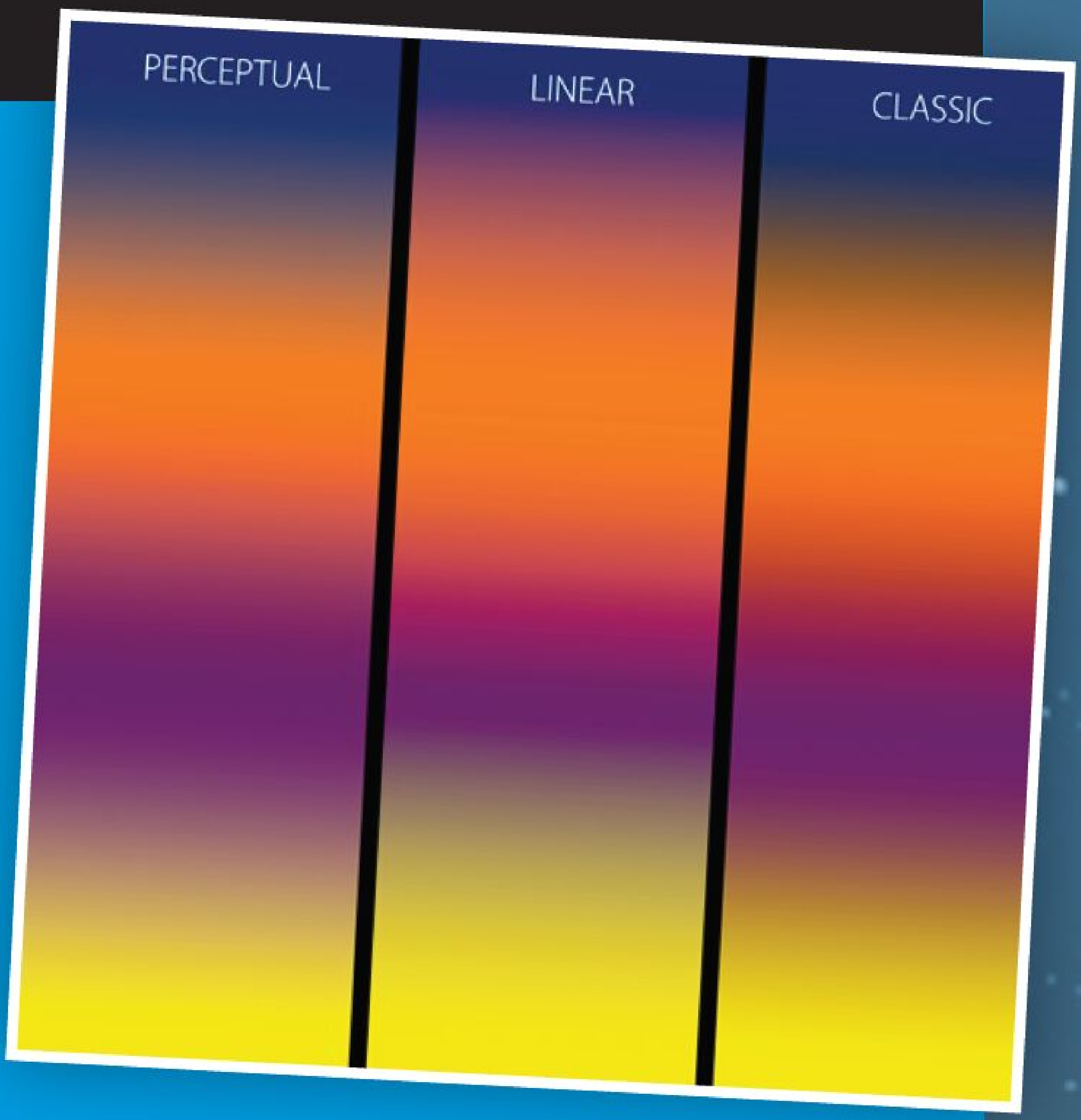


Gradient Tool

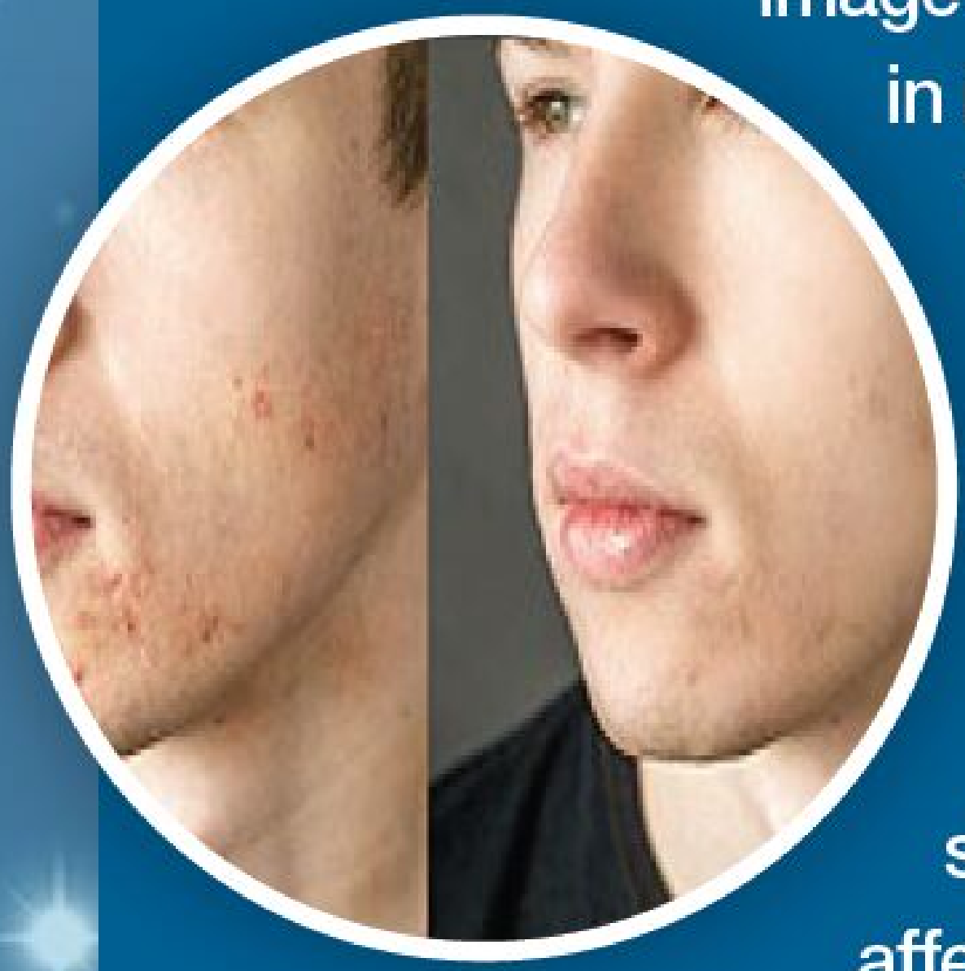


The Gradient Tool has been a staple of Photoshop pretty much for ever, but most recently it has had a small update in the 2022 release of Photoshop. The change may seem fairly bland compared to some of the other features available, but Adobe clearly decided it was required. Back in the days of Photoshop 2021 and older, when you chose the Gradient Tool, the method that was used to blend colours together was the so-called classic method. Now, though, when using the Gradient Tool, you have Classic, with Linear and Perceptual added to the list. What's the difference you may ask? Our example uses a simple multi-coloured grad, and the three different blend methods are displayed side-by-side for easy comparison. Apparently, the Linear method is more akin to the way Adobe Illustrator blends its colours. Perceptual is said to be more a more accurate blend method and presumably results in more colour-accurate output to print. Ultimately, it's up to you. Which do you prefer?



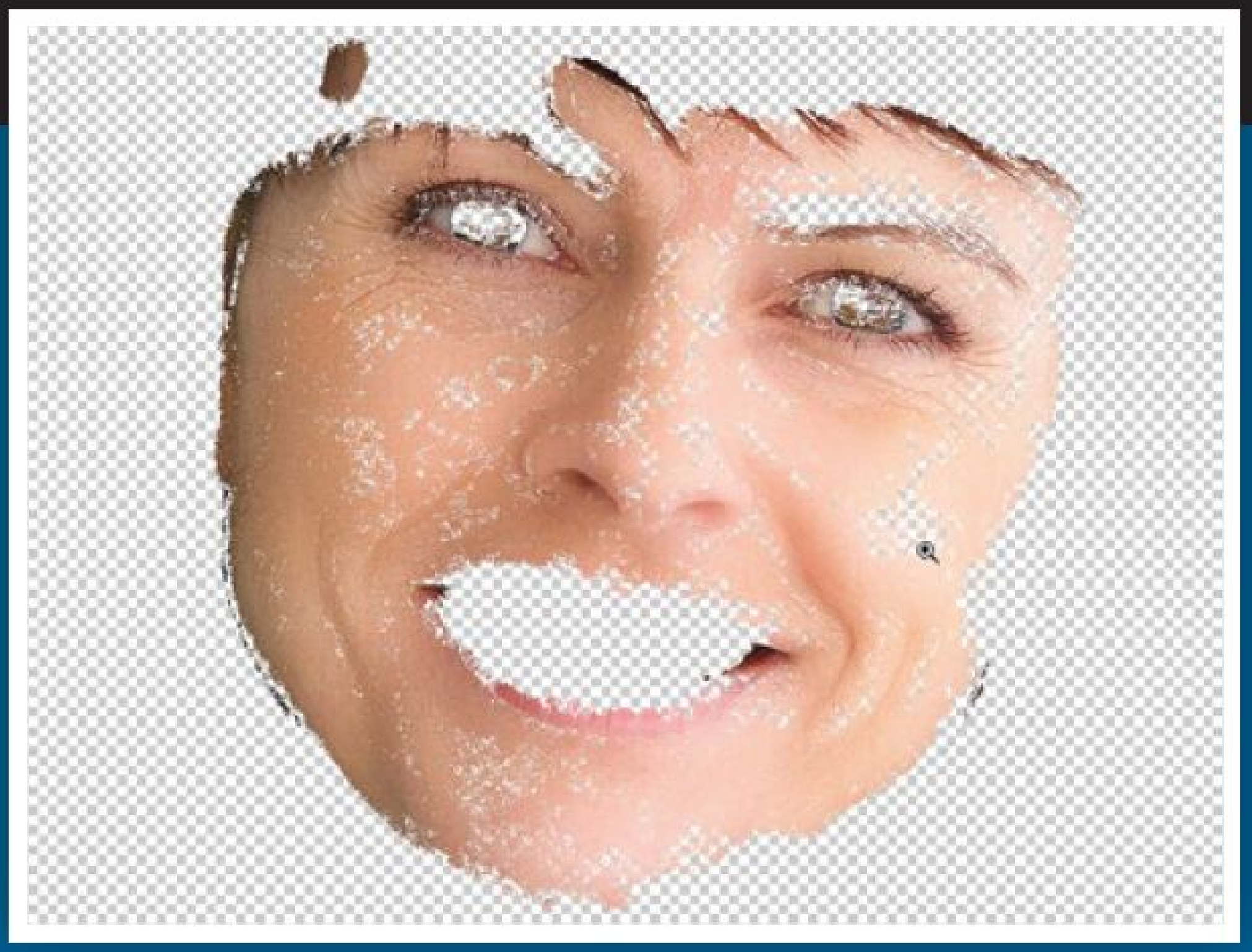


Skin Smoothing



This is a Featured Neural Filter that makes quick work of skin retouching. It requires an image with an obvious face in it, otherwise the filter is not active. When you activate the filter it scans the image and places a blue bounding box around the subject's face to show the area that will be affected. Note that partial portraits due to cropping may not work. A full face works best.

You have two control sliders. One is for Blur and one for Smoothness. You can experiment with how much of each adjustment is needed and the large preview image will update accordingly. Our example used the full amounts of both options and actually didn't look bad. Enough detail was kept in the portrait to avoid it looking like a shop mannequin. Faces with a lot of freckles or larger and more numerous blemishes will result in a slightly more muddy look. These do look more obviously retouched and the amount of blur can spoil the portrait. A less automated and more advanced method of retouching might be in order but for a basic one-click option, it does reasonably well. The areas retouched by the filter can be output to a new layer if you feel the need to make any additional edits.



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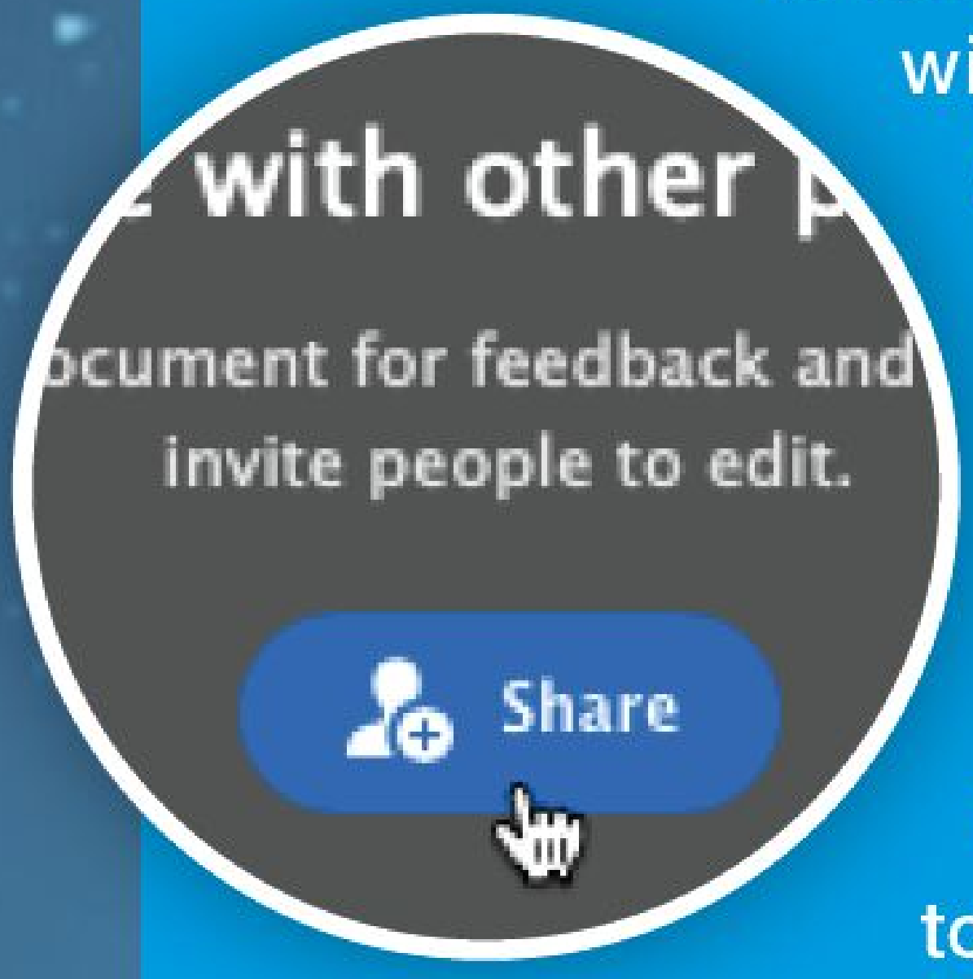

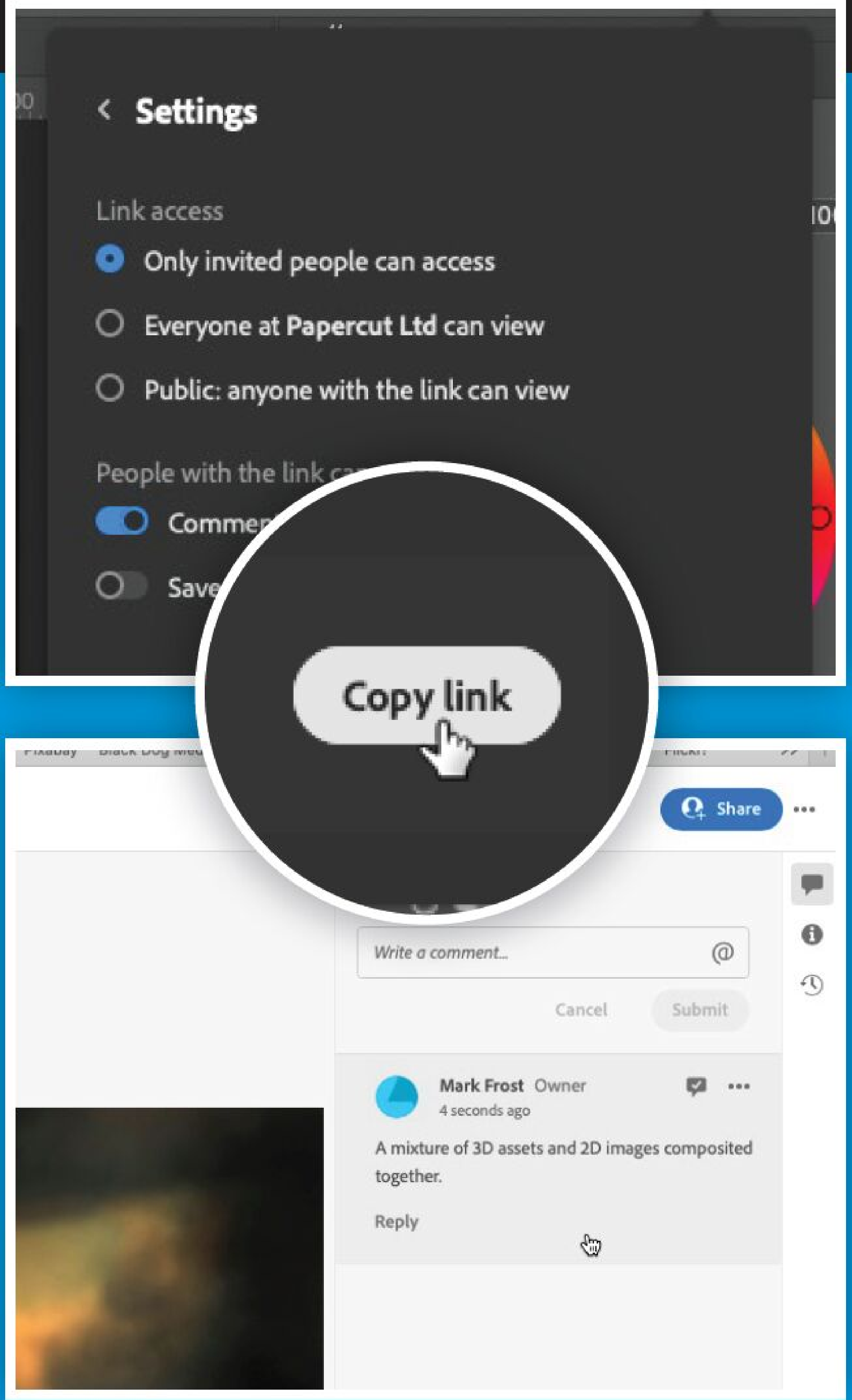
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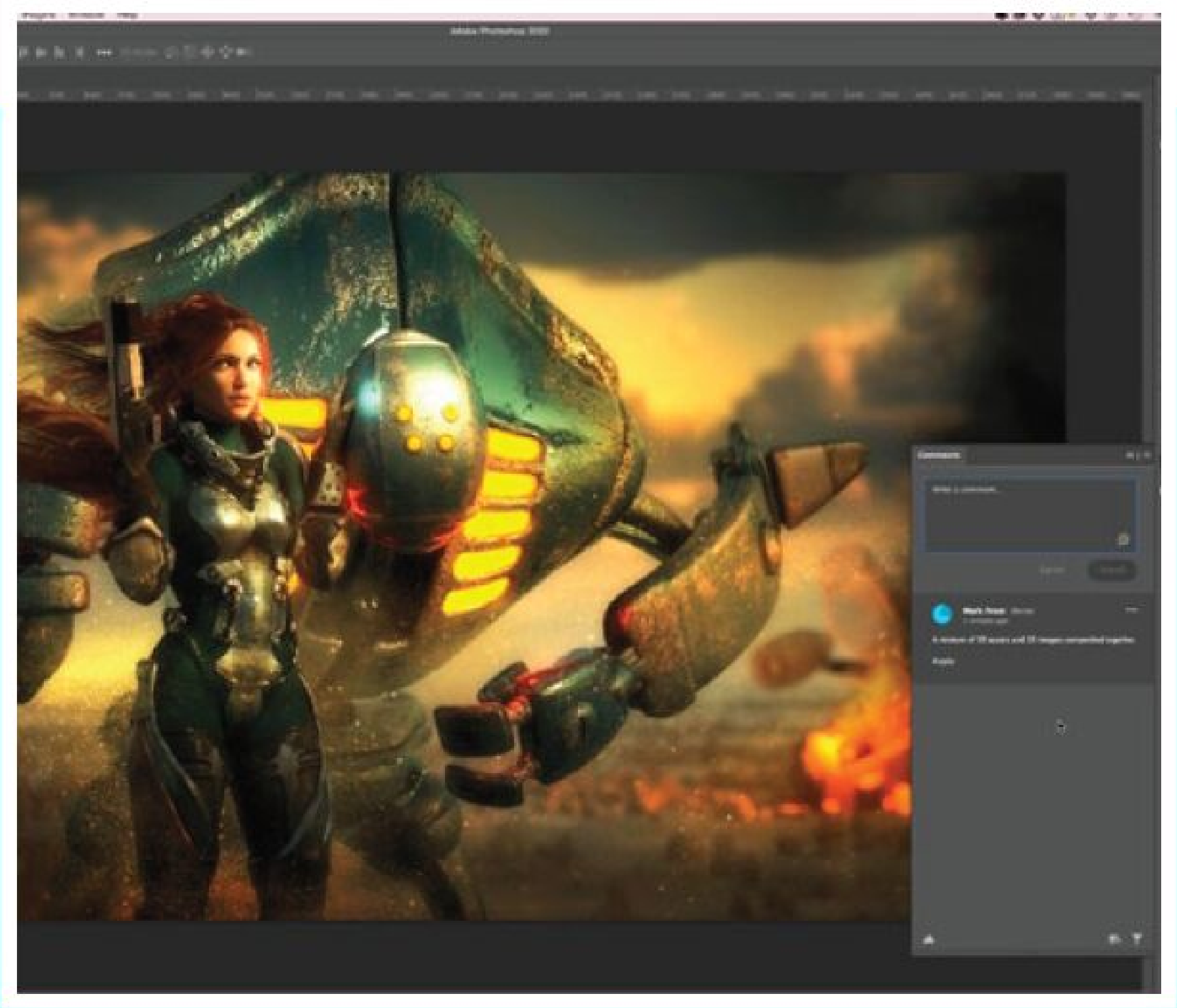
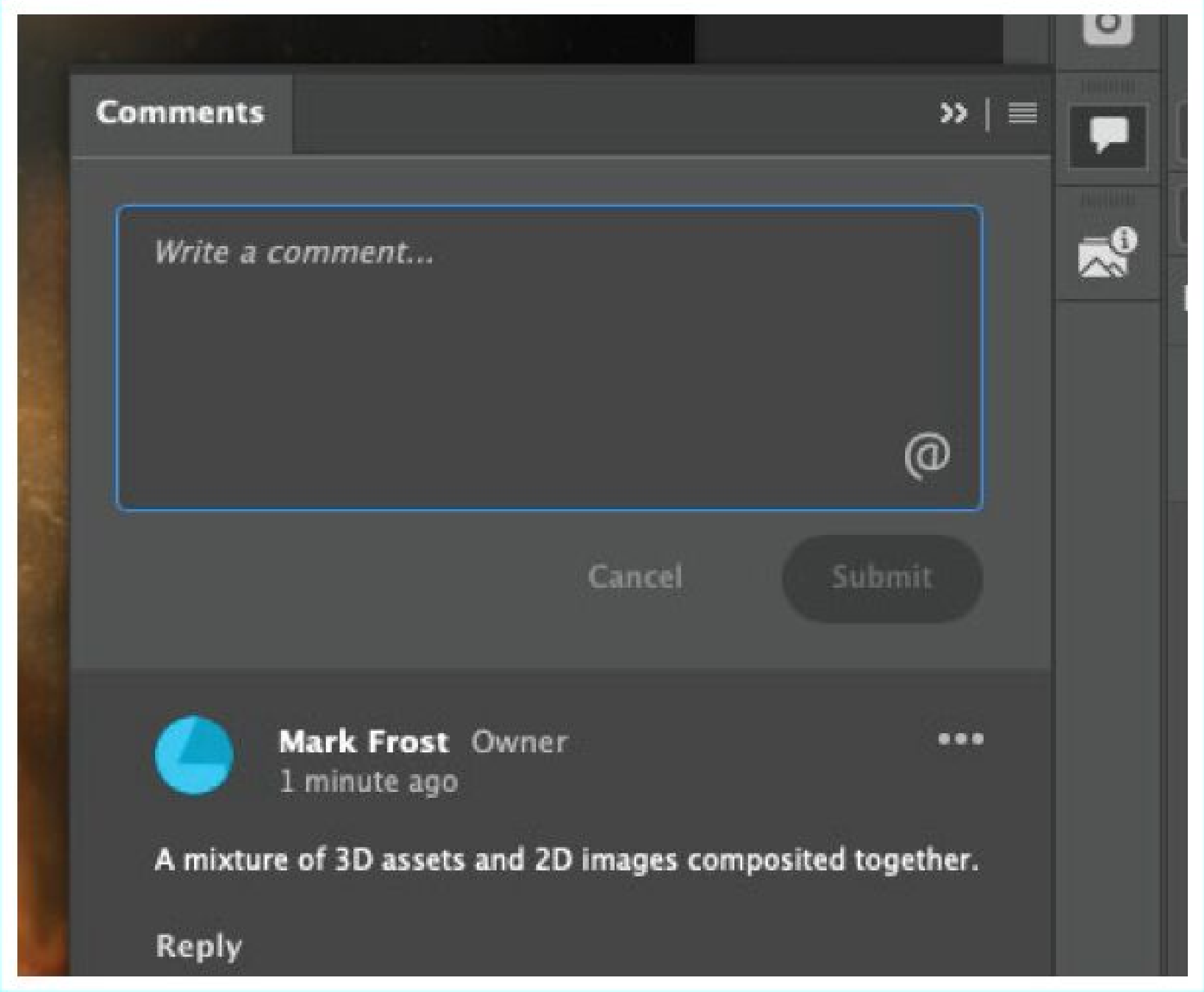
A mixture of 3D assets and 2D images composited together.





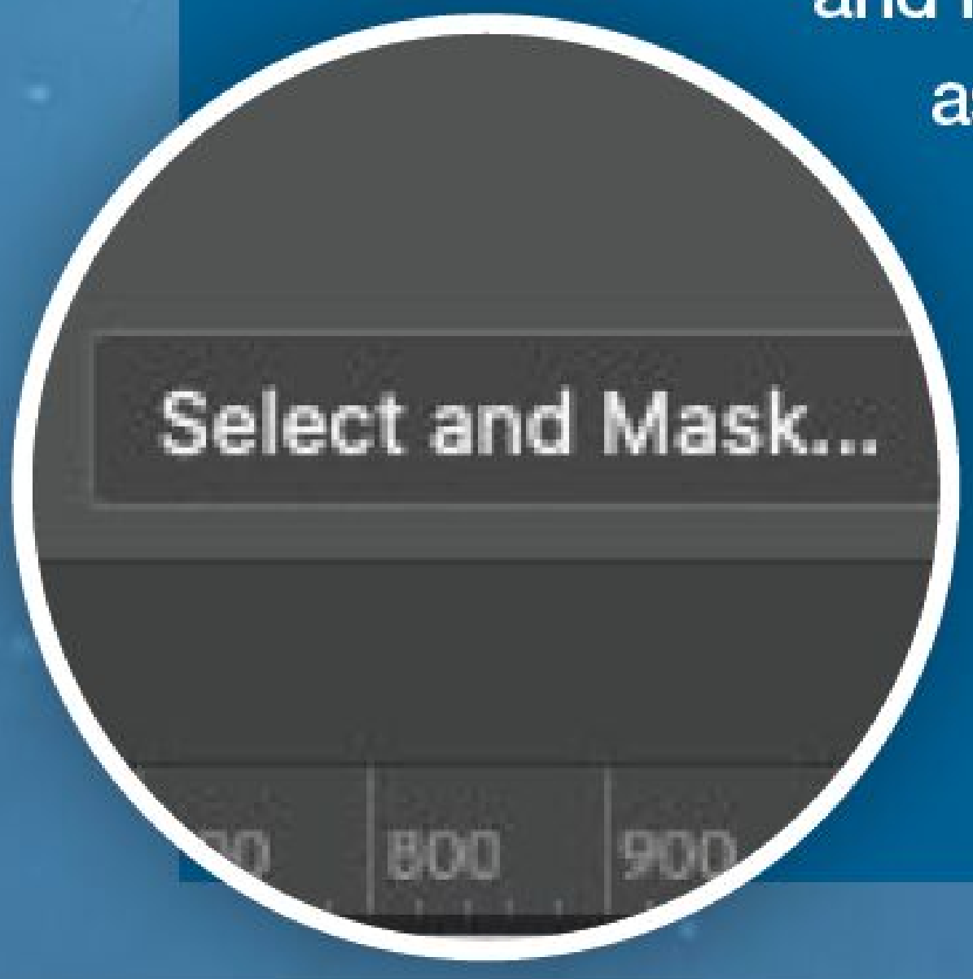
A mixture of 3D assets and 2D images composited together.

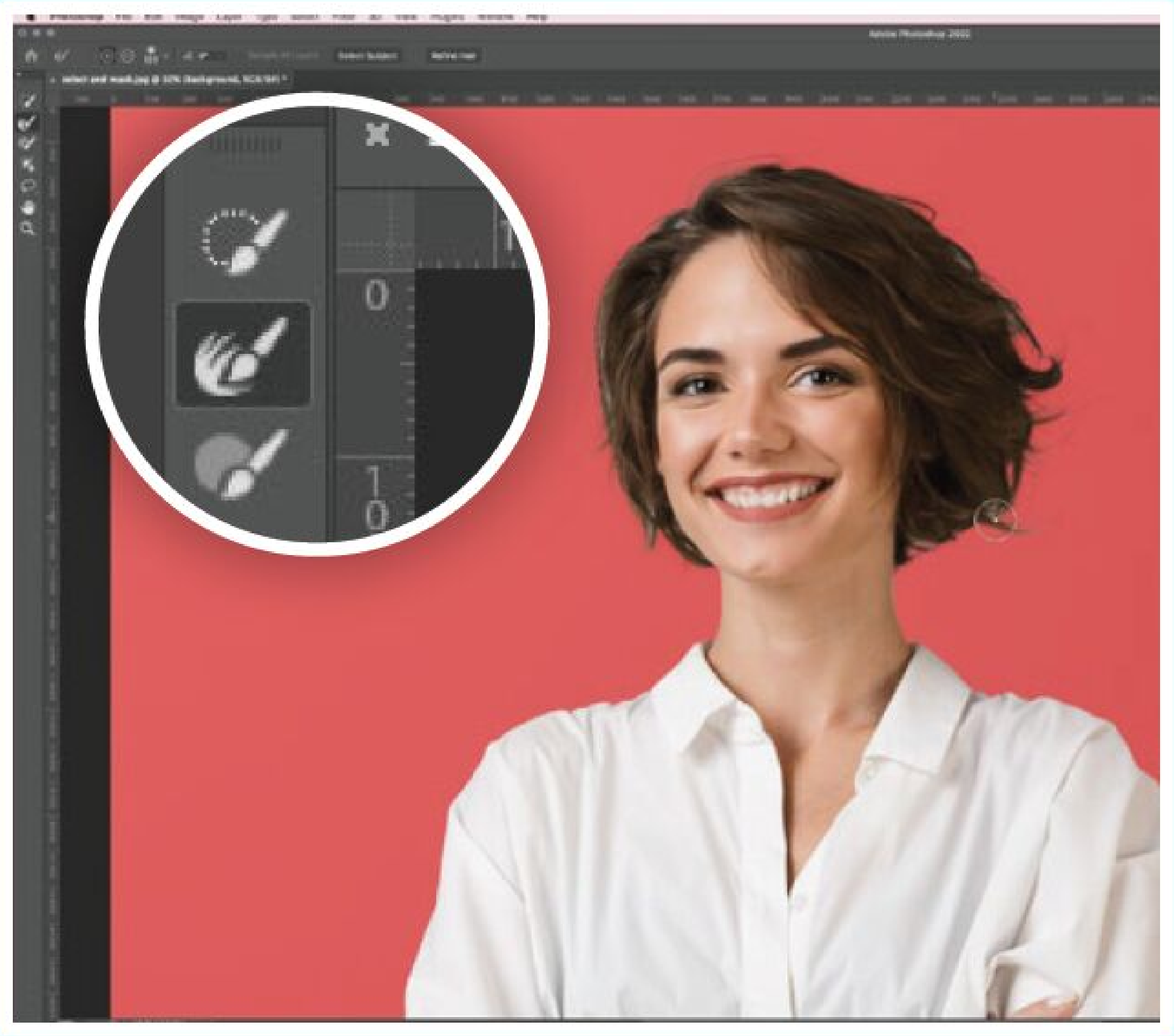
As the name implies, this feature allows you to share your work on-line for others to comment on and interact with if preferred. First of all, your image needs to be saved to the cloud otherwise others will not be able to see it. This is easy to do. Open an image that you want to share and click on the Share for Commenting button in the top right of the menu bar. Hit the Continue button and you can save the document to the cloud. Our example was named ‘Girl and Robot’. Once it is saved to the cloud, note that the file format is now a .PSDC. When you click it and open it, note that the document tab shows a small cloud icon in front of the filename to let you know you are dealing with a cloud-based file. Now that it’s open, go to Windows > Comments to open the Comments panel. Click on the Share button to open a small preferences panel. You can invite people to edit the file or you can change the parameters by hitting the Change Settings button. Click your choices of Link Access and people you can link with and return to the Share Document panel. Now, if you click the Copy Link button, you can send that link to people you want to view the on-line image, or paste it into your browser so you can view it yourself. The file is up on the cloud and is accessed via your Adobe account. Here you can comment on the file, view other people’s comments or delete/filter them as required.

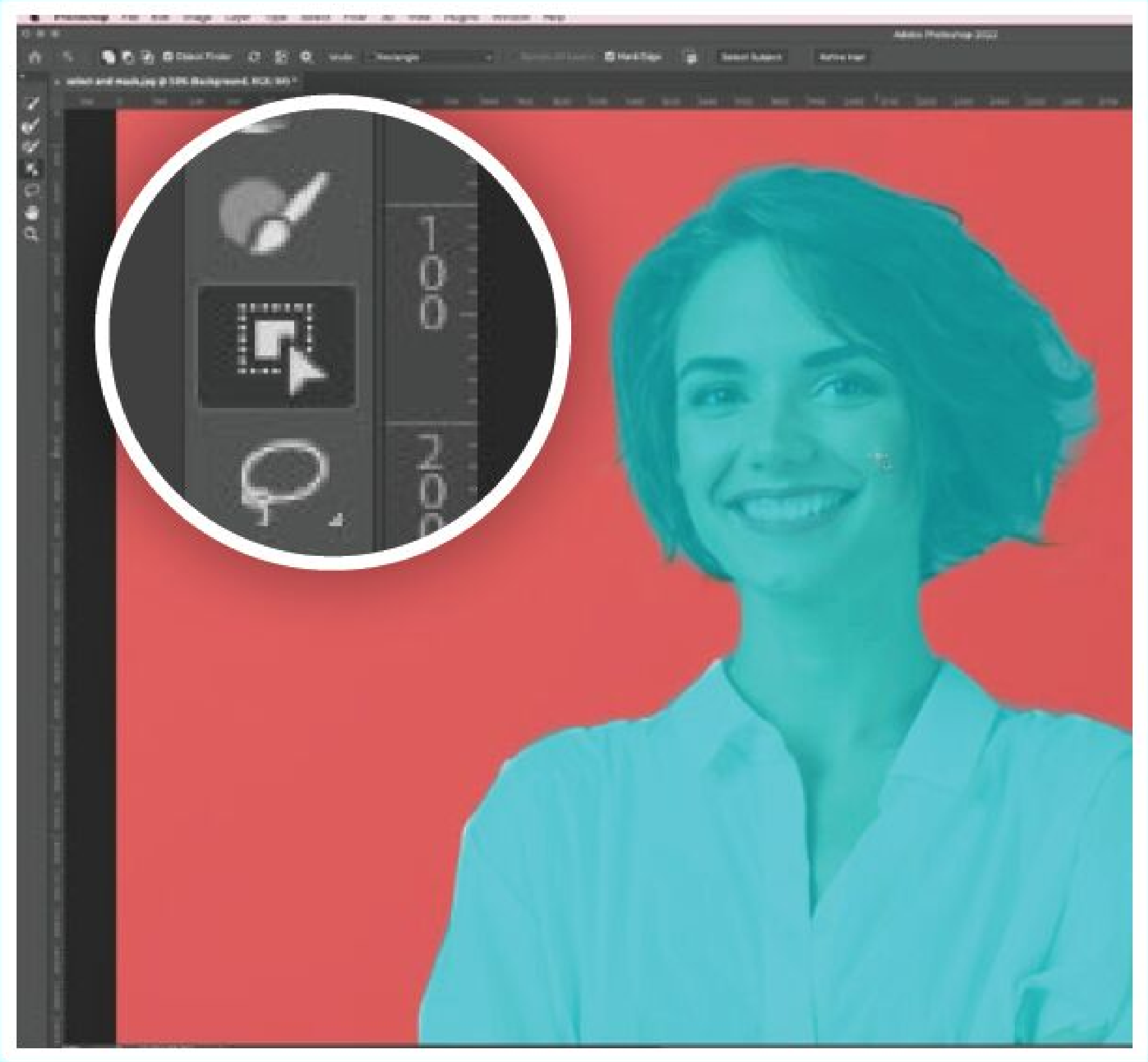
If at any point you go back into Photoshop and open the cloud-based file again, you can go back to the Comments panel and view any comments that may have been made about the image in the meantime. This is handy, since you don’t have to log into your Adobe account and view comments that way.

Select and Mask

The Select and Mask tool (originally called Refine Edge) has been with us for a while but there have been a couple of tweaks made worth mentioning. When you access the Select and Mask toolset, you will notice that on the top menu bar are two buttons. One is Select Subject (which can also be found on the main Select menu options) and also a Refine Hair button. The Select Subject button will analyse your image and make a determination as to what your main subject is and put a selection around it. With the new Photoshop update, the improved Object Selection Tool found out on the toolbar is also available within the Select and Mask panel. It behaves just as it does out in the main document. Over in the properties panel on the right, is a Refine Mode option with a choice of Color Aware refinement or Object Aware. If your subject has a well differentiated background comprised of a single contrasting colour, you can choose the Color Aware option to help separate your subject from that coloured background. Otherwise you can use the Object Aware option to scan the image for obvious objects to help the refinement process. If your selected subject is a person and their hair is difficult to make a selection of, you can also click the Refine Hair button in the top menu and it will attempt a more accurate selection of fine hair detail. There are a number of Output To: options, our example has the selection turned into a mask so we can separate out the subject from the background.



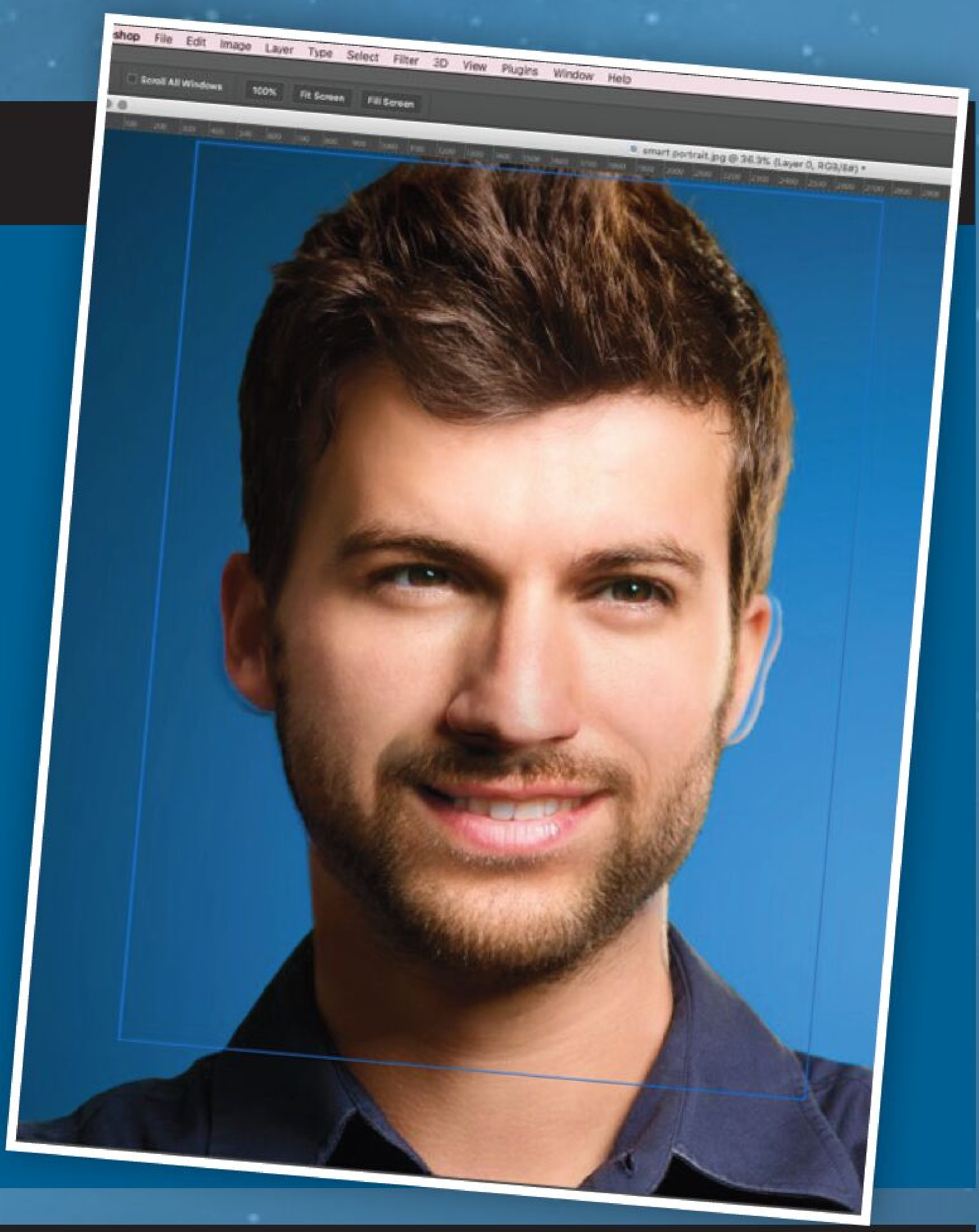




Smart Portrait

Next is the Smart Portrait filter. This one has been around since the 2021 update and is currently still in Beta. Your image needs to contain a face which the software can detect and surround with a blue outline. Then you can start making some eye-opening alterations. For example, if you move the Be Happy! slider to the far right, after giving the filter some time to think about it, up pops a result that has transformed a neutral, unsmiling subject into one with a toothy grin! Trying a couple of different images shows that it either works well or fails hilariously. Various other emotions are available and so is the ability to change the direction your subject is looking (up to a point). The Facial Age slider is able to age your subject by adding wrinkles and grey hair or make them look more child-like. The results can be output to a new masked layer to preserve your original image.

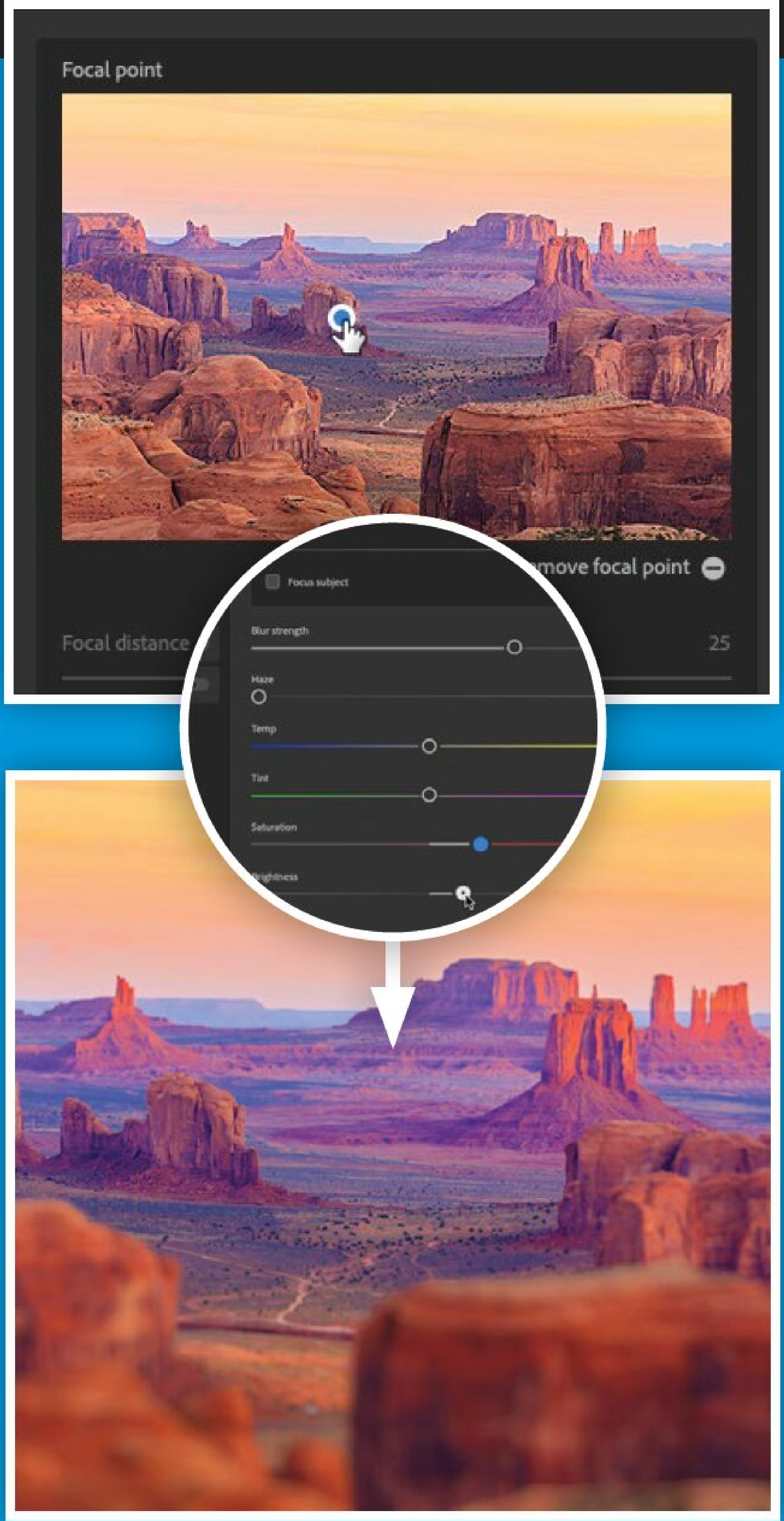
As we've noted, it can work well, depending on the original image or just completely fail with some scary results. For the moment, this one feels like some more refinement to the editing ability of facial features is on order before it becomes a Featured Filter.



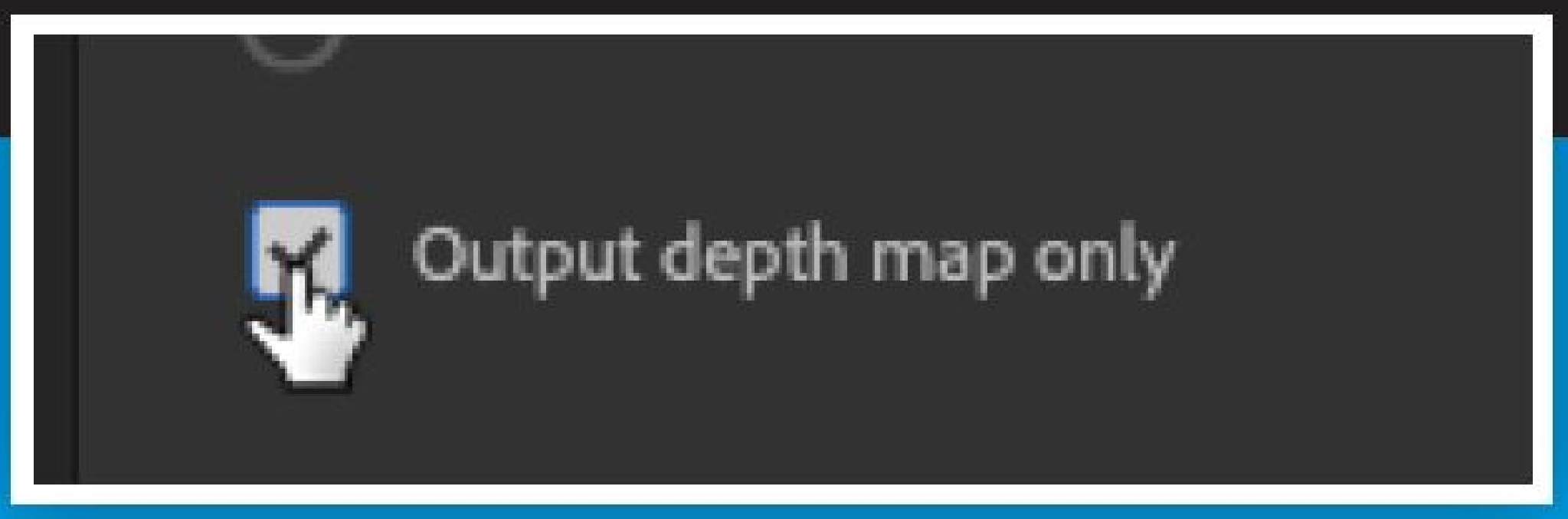
Depth Blur

Another Neural Filter currently in Beta phase. This particular filter lets you take an original image with sharp focus throughout the scene and create custom blur to make the image look like it was shot with much shallower depth of field. The example image is very sharp, but with the filter applied, you can blur the foreground rock structures and the ones in the far distance. By clicking on the preview image and adding a focal point, the rocks in the middle ground remain sharp. You can put the focal point anywhere in your image and you can use the Focal Distance and Focal Range Sliders to alter the affect. The amount of blur can also be controlled by a slider and so too can the amount of atmospheric Haze. You also have the option to tweak the Temp, Tint, Saturation, Brightness and Grain sliders. When you have something you like, you can output the final result to a new layer and call it done. There is another option, though, which is a bit more complex.

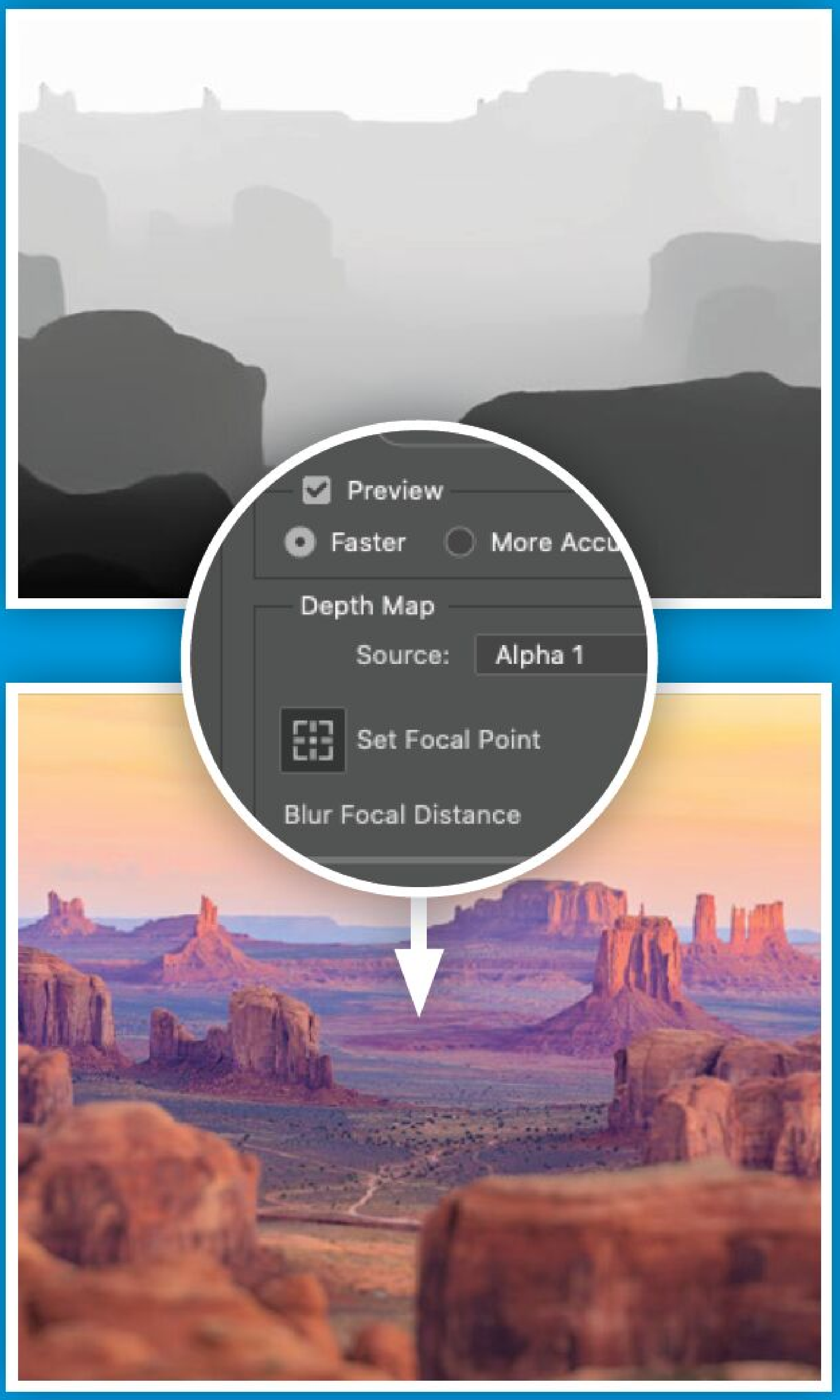
Instead of saving the result, you can click on the Output Depth Map Only button. This breaks the image down into a series of grey shapes that coincide with the shapes of the rocks in the shot. Note that the closest objects are black and the furthest objects are white. Simply put: black is closest to you and white is furthest away. The Depth Map is saved to a new layer and can be used with Photoshop's Lens Blur tool by adding it to a new Channel which we've called Alpha 1. Click on your your original untouched sharp landscape and go to Filter > Blur > Lens Blur. In the Lens Blur setting panel, click the Depth Map Source and choose Alpha 1. Activate the Set Your Focal Point tool and click on the rocks in the middle of the image. As you increase the blur radius, you'll see the foreground and the distant rocks start to blur. The depth mask in conjunction with your chosen Focal Point prevents certain areas blurring, but allows others to be affected. This gives a similar effect to the Depth Blur filter.



Focal distance 25



☑ Output depth map only



☑ Preview

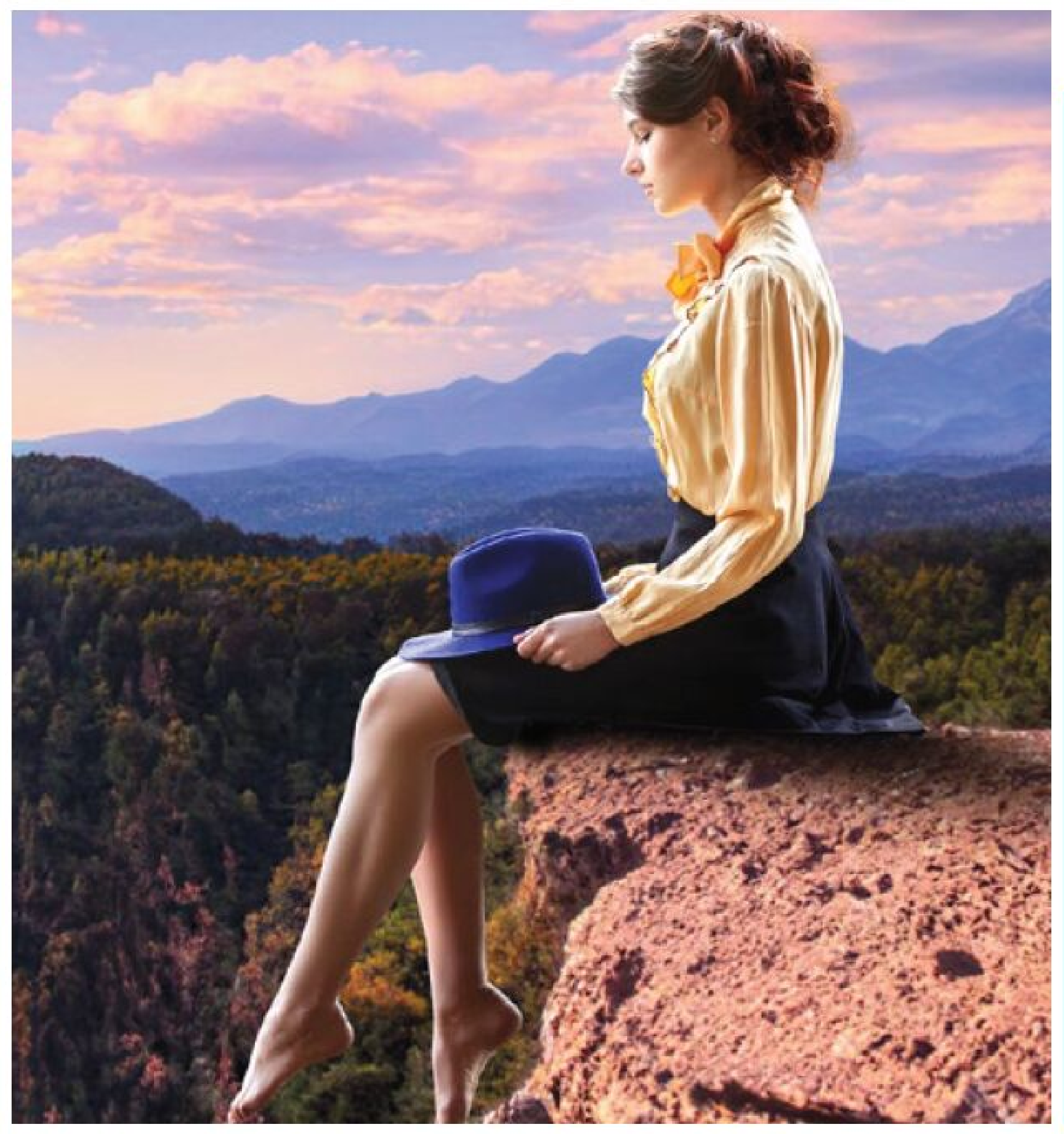
● Faster ○ More Accu

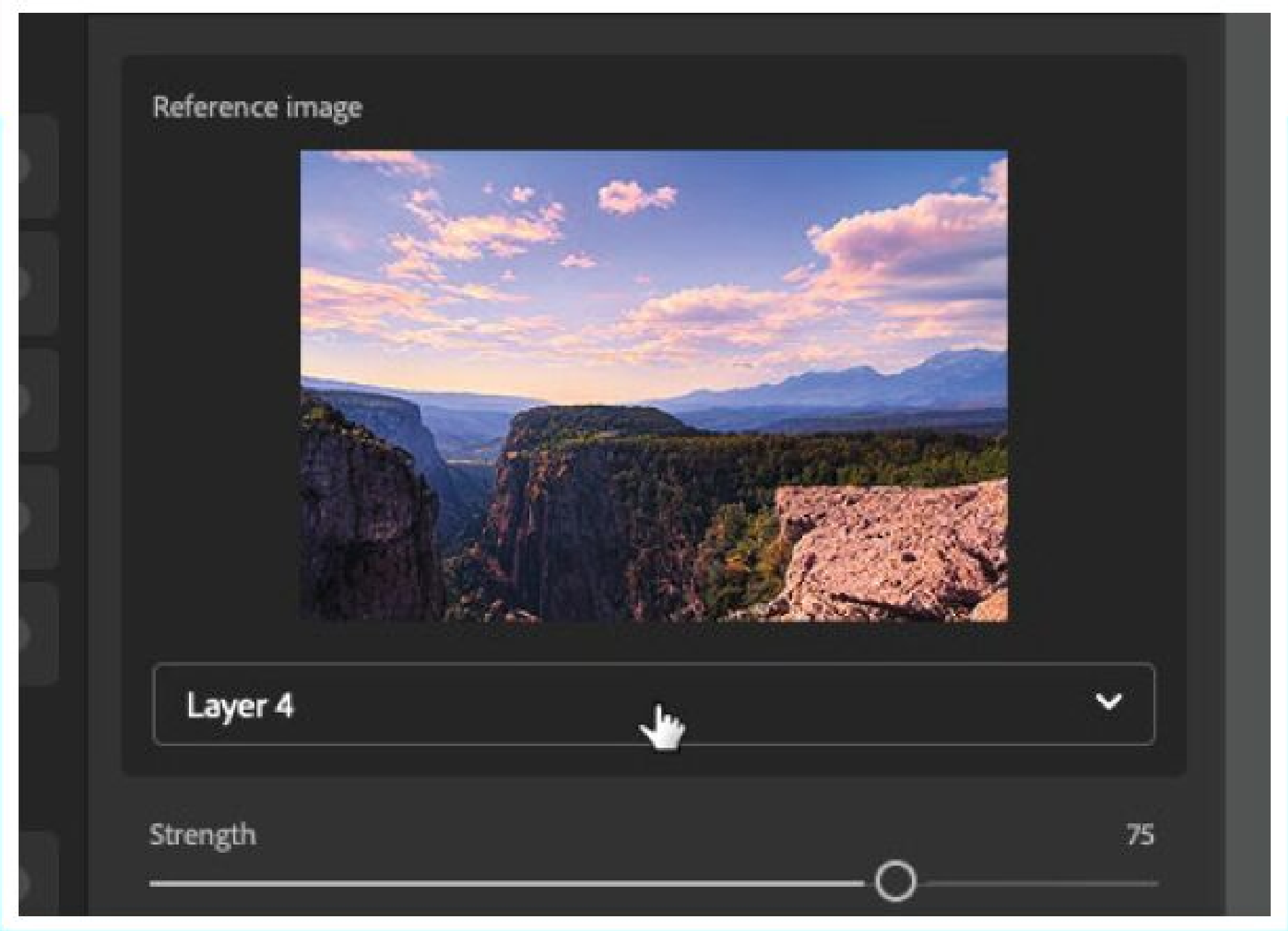
Depth Map

Source: Alpha 1

Harmonization

This is a new Neural Filter. Currently in Beta, this one should be of great interest to those Photoshop artists who like doing composite images. Composites are created by taking multiple images from various sources and cutting bits out from each and assembling those elements into a new artwork. The problem faced by the composite artist is how to seamlessly blend one image into another so its colour and lighting matches the rest of the scene. This is where Harmonization steps in. Our example is a very simple composite image of a girl sitting on the edge of a cliff. The lighting on the girl is not quite right based on the background landscape she's meant to be inhabiting, so a little help is required. Make sure the layer you want to harmonize is active, then go to Filter > Neural Filters and click the Harmonization button. You will be asked to choose what image in your document you want the chosen layer to look more like. In this case, the landscape background 'layer 4' is the target reference. The filter now knows to alter the colours of the girl to look more like the landscape. Boosting the Strength, Saturation and Brightness yielded a very good result. The girl's colours have been altered to warmer tones to sit more seamlessly with the background's. Now you can choose to output the girl to a new layer and use that version instead on your composite.

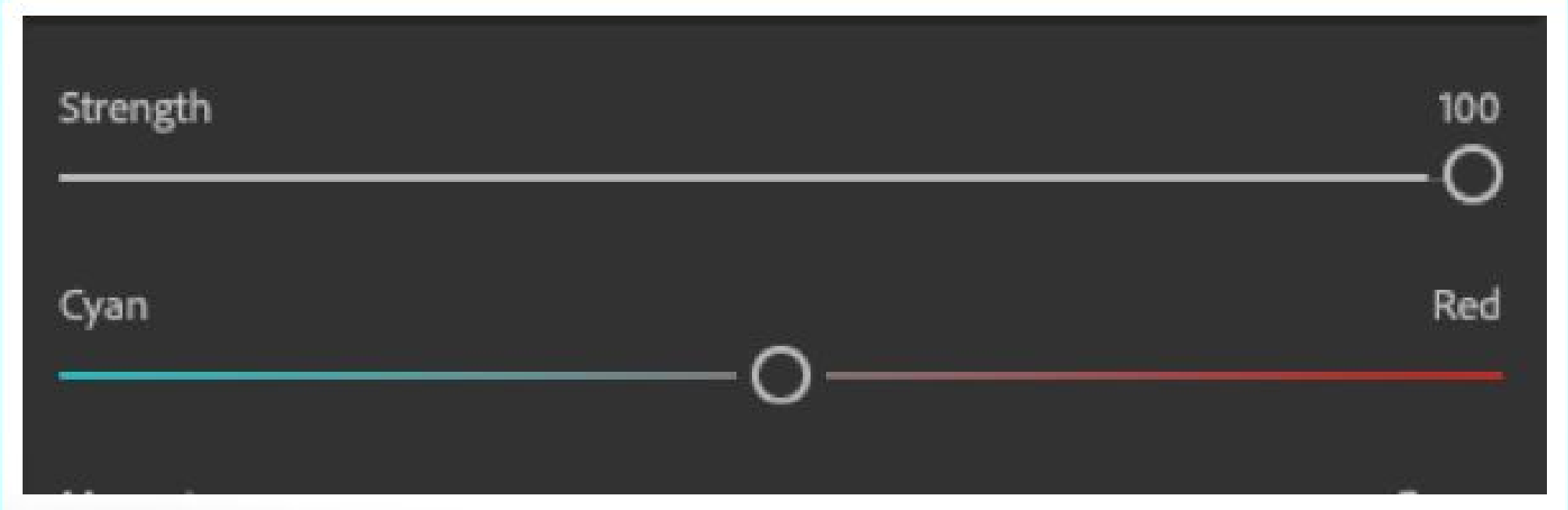




Reference image

Layer 4

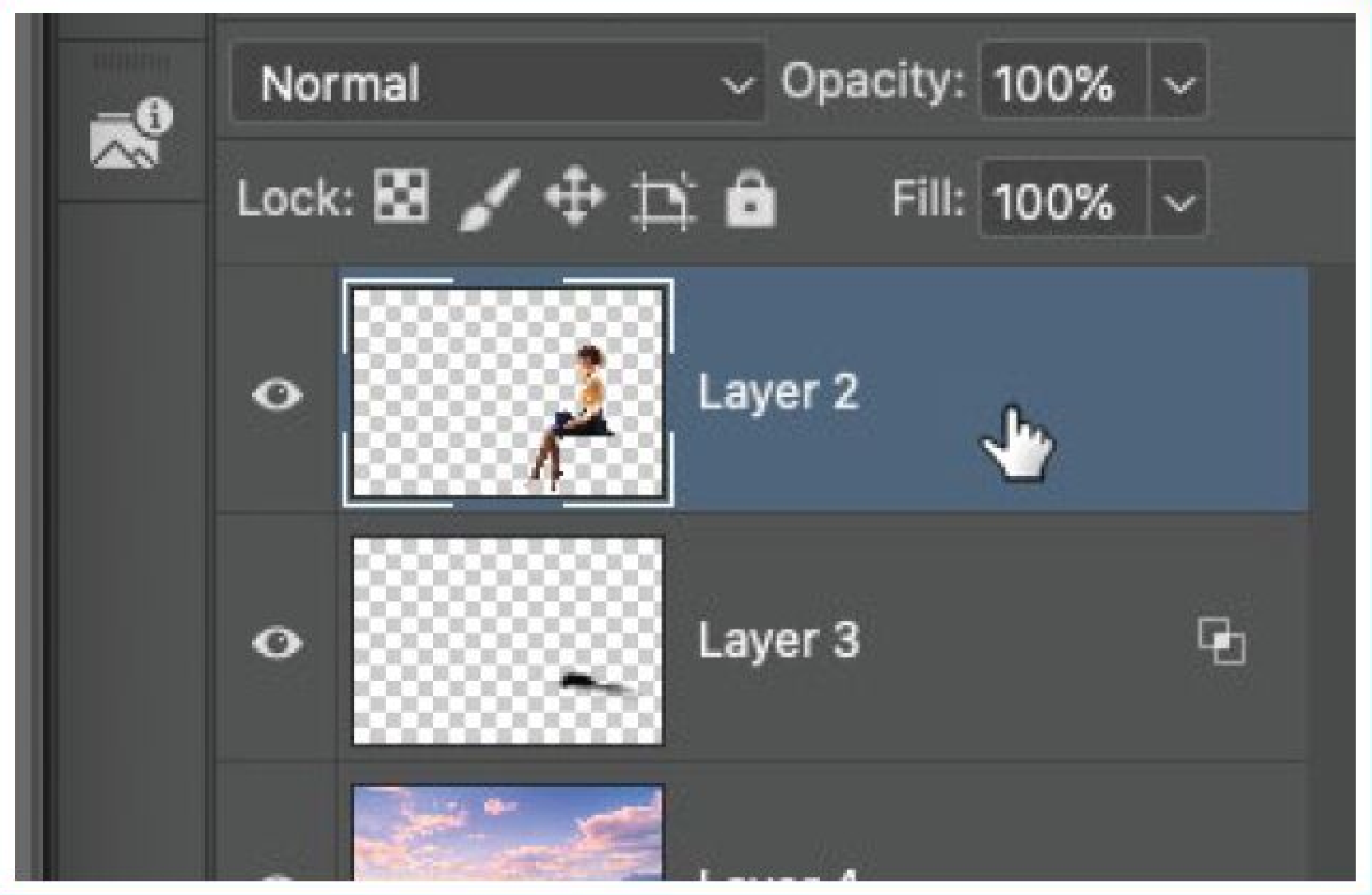
Strength 75



Strength 100

Cyan

Red



Normal

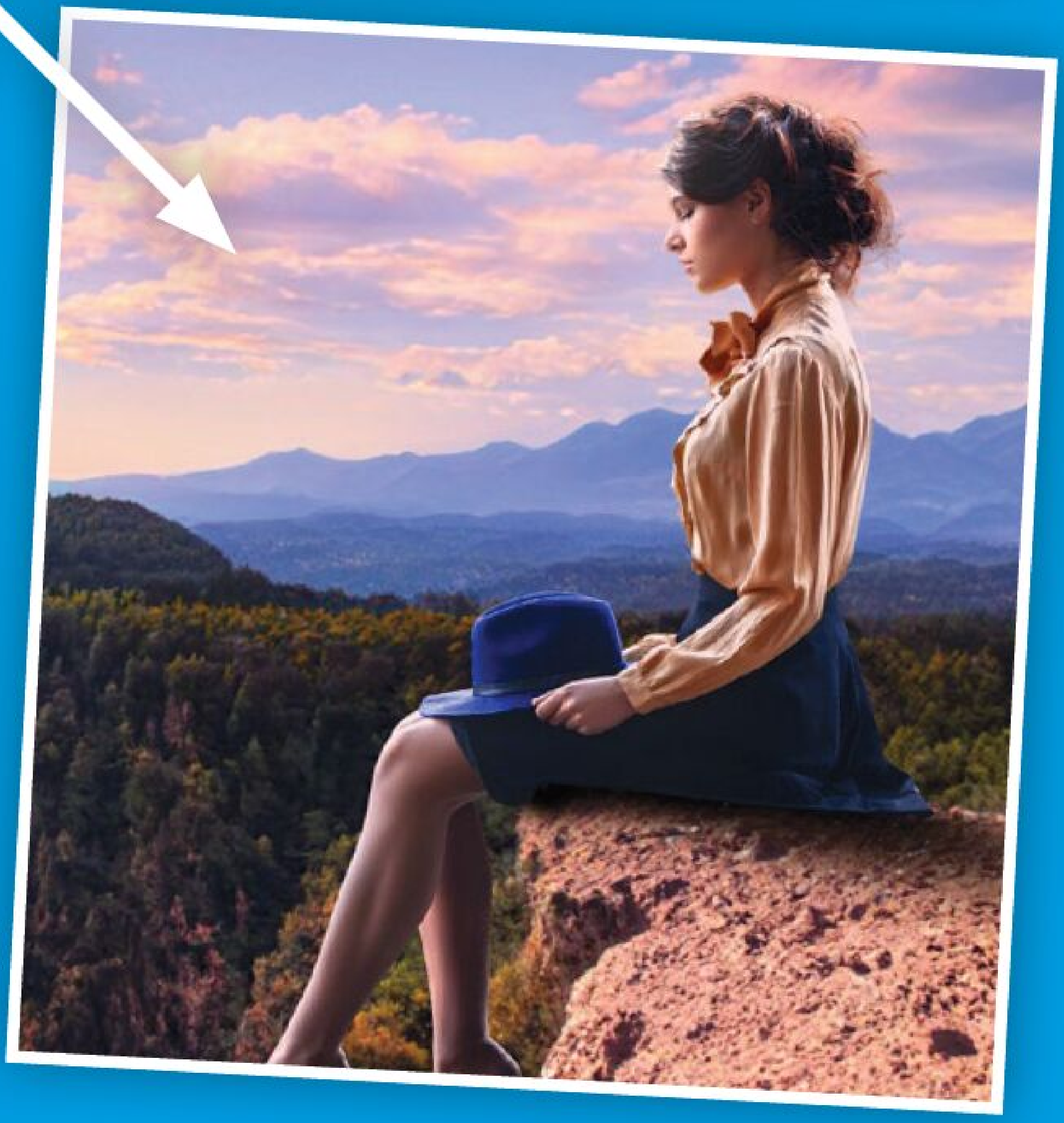
Opacity: 100%

Lock:

Fill: 100%

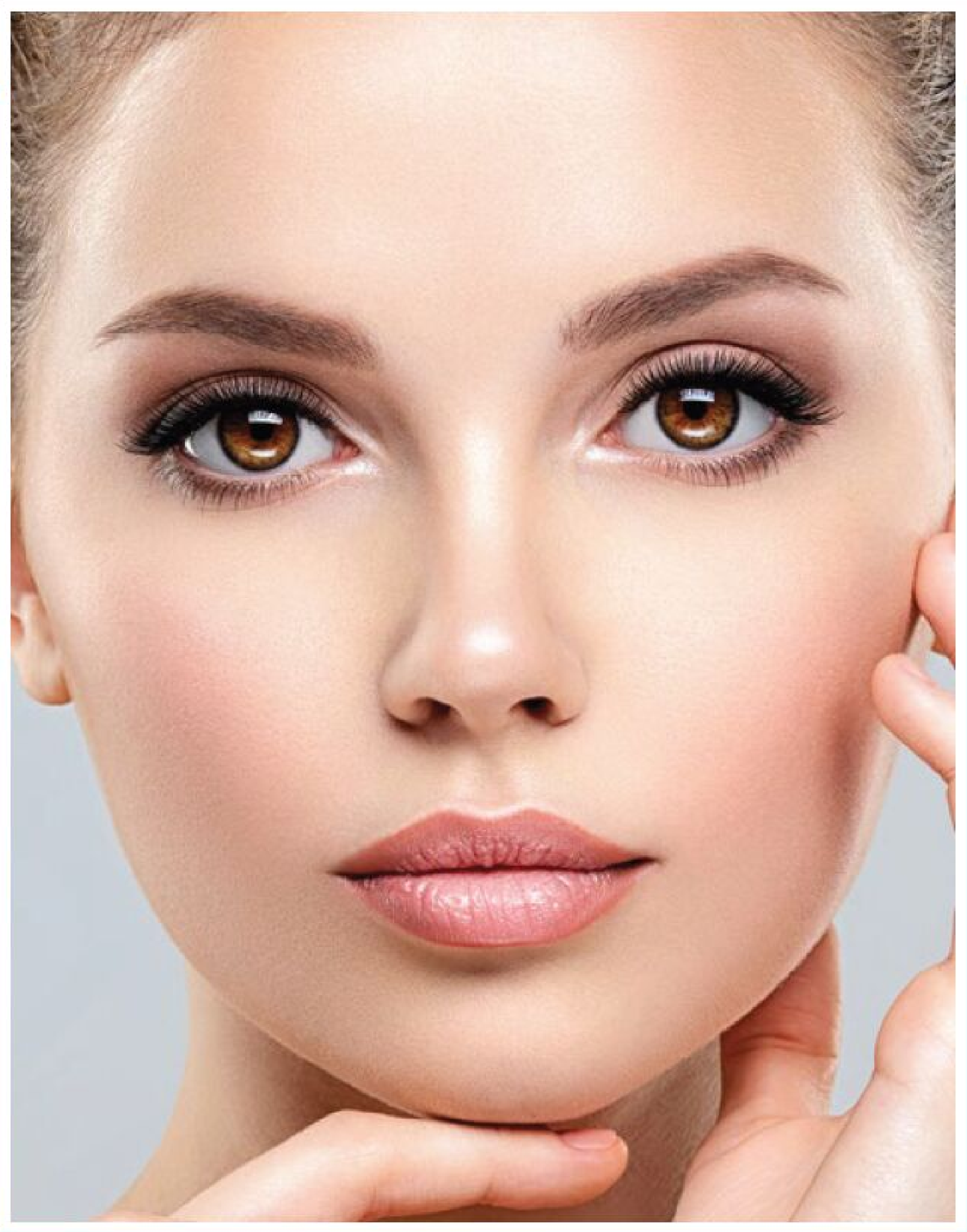
Layer 2

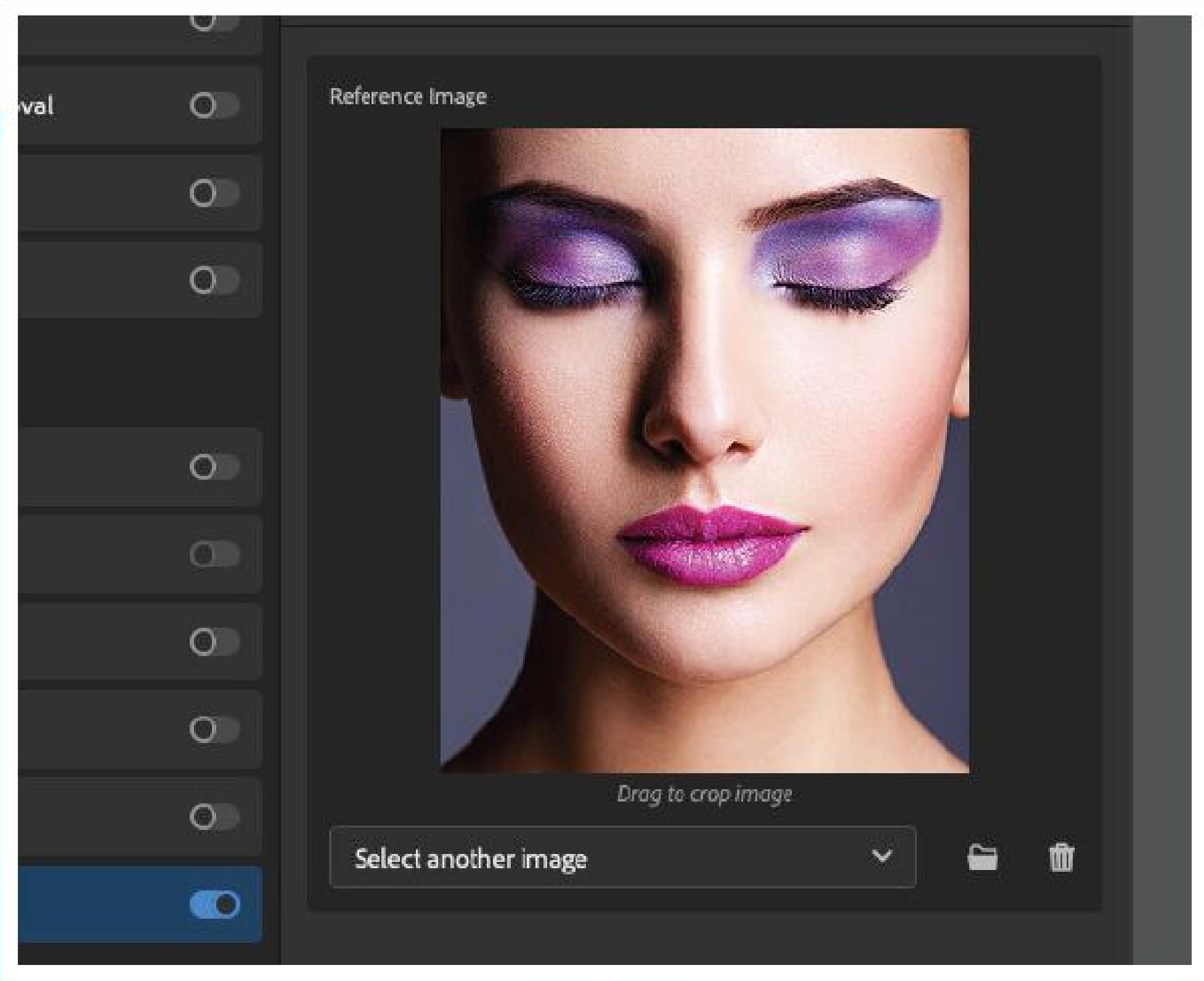
Layer 3



Makeup Transfer

This is a Beta filter with quite a specific function. As the name no doubt suggests, it will attempt to apply any makeup effects found in one image, to the eyes and lips of the subject in another image. To that end, our example is a shot of a fashion model with bright purple eyeshadow and bright pink lip gloss. Our second image is another model with makeup applied. Make sure the model with no makeup is the active image and then fire up the Neural Filters and activate the Makeup Transfer tool. It shows you the current face you have selected and then you can choose the reference Image by clicking on the dropdown list and choosing the second image of the model with all the makeup on. The Neural Filter will do its thing and then the result is displayed. Then you can save the result to a new layer and that is Makeup Transfer in a nutshell.

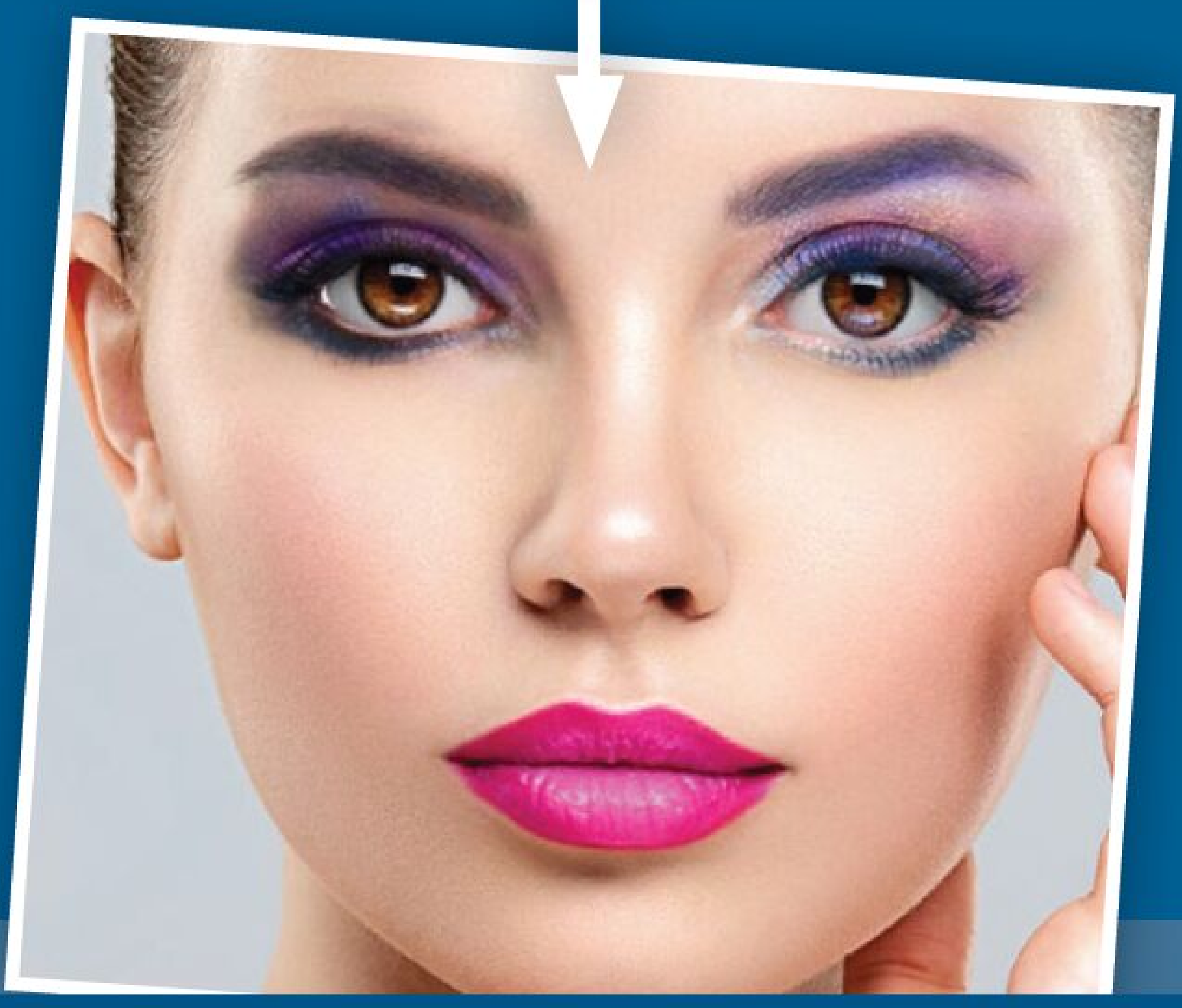




Reference Image

Drag to crop image

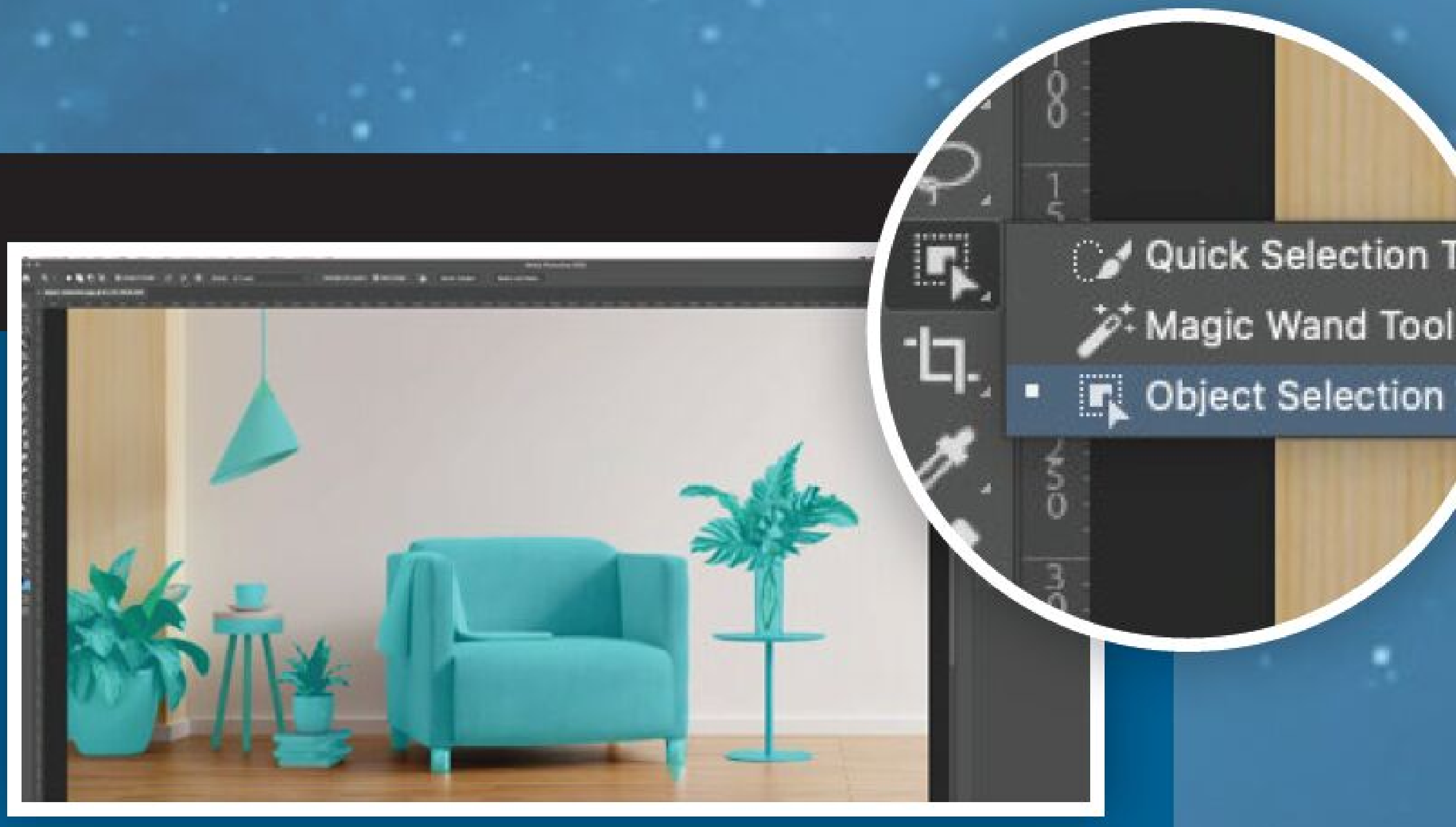
Select another image

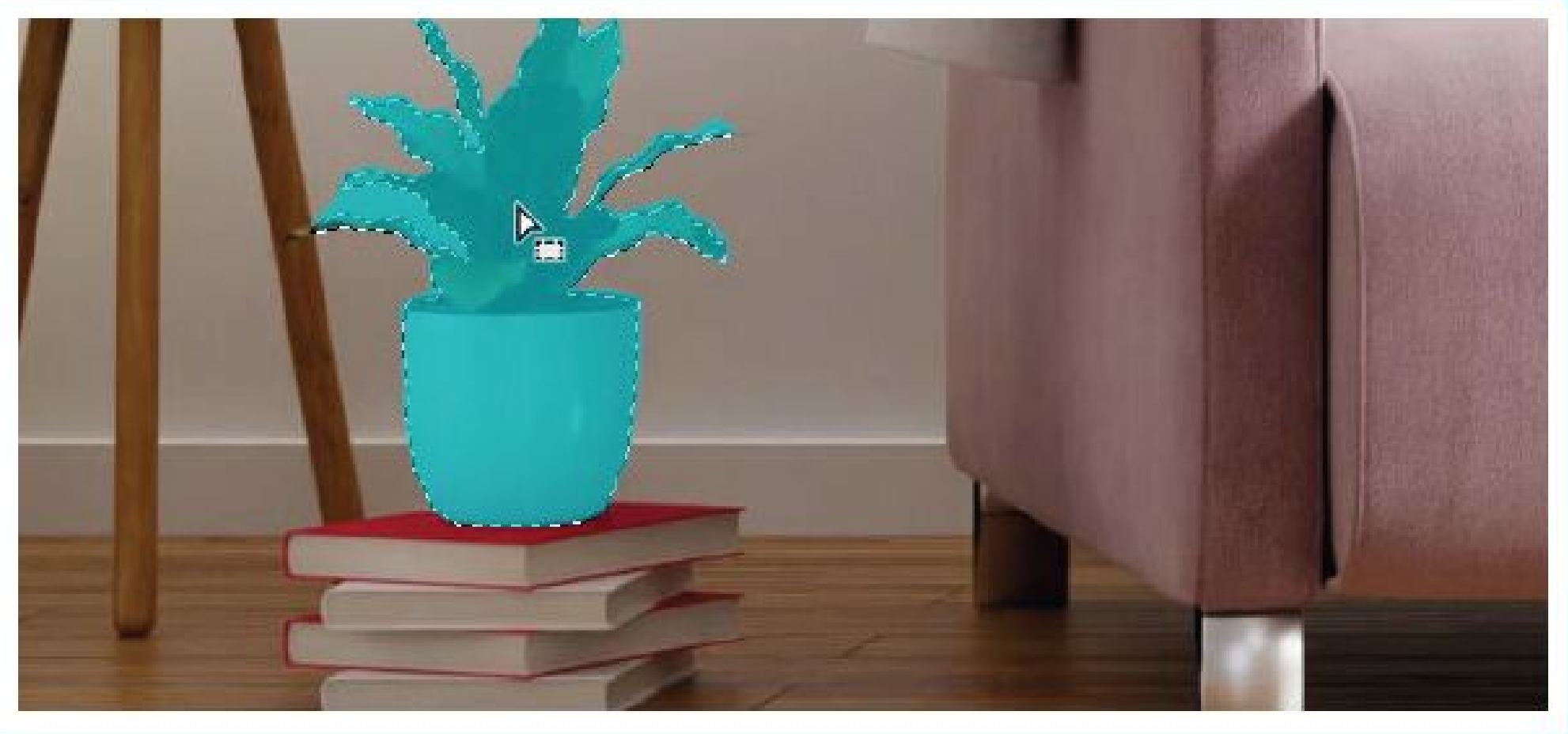


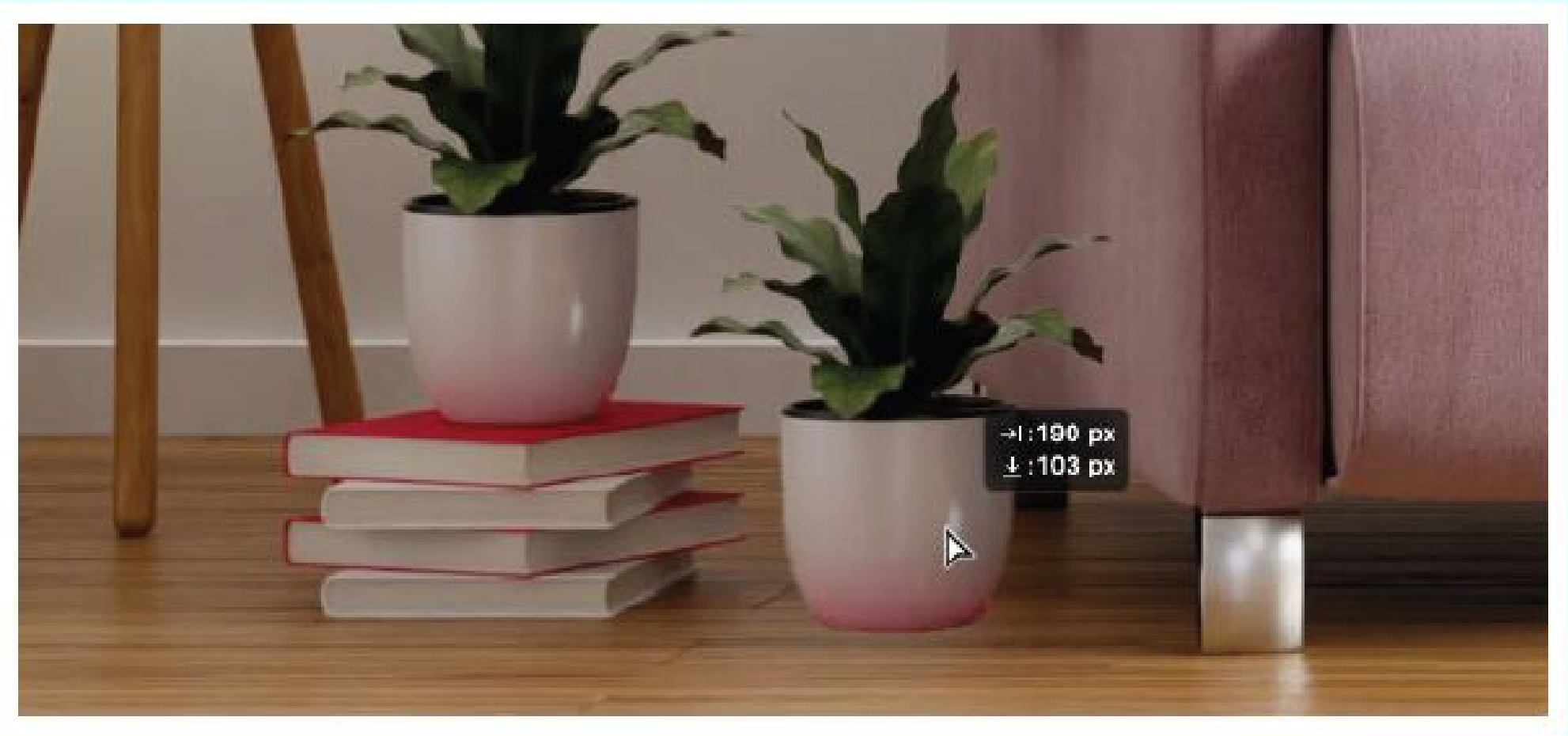
Object Selection

The methods by which you can select objects in your document has been updated with the inclusion of the improved Object Selection Tool. Found in the toolbar or by pressing W, this function analyses your image and makes note of how many distinct, separate objects there are in your photo. In order for this to work, you need to make sure you have the Object Finder button checked. You can find it up in the tool properties bar. In our example, after a few seconds of scanning, most of the obviously distant elements in the image were marked for selection. You can press and hold the N key to view which ones have been chosen or click the Show All Objects button in the tool properties bar. Alternatively, you can simply roll your cursor over each image element and if they are highlighted, then they can be selected. Next to the Show All Objects button is a gear icon, this is the setting panel for Object Selection Tool and lets you alter the Color, Outline and Opacity of the overlay and whether the Object Finder Mode refreshes itself manually or automatically. You can also choose the Mode of selection via the small dropdown menu. You can choose between Lasso and Rectangle. The Hard Edge button allows you to choose whether your selections have hard edges or, when not checked, a softer edge if dealing with more complex edges like hair.

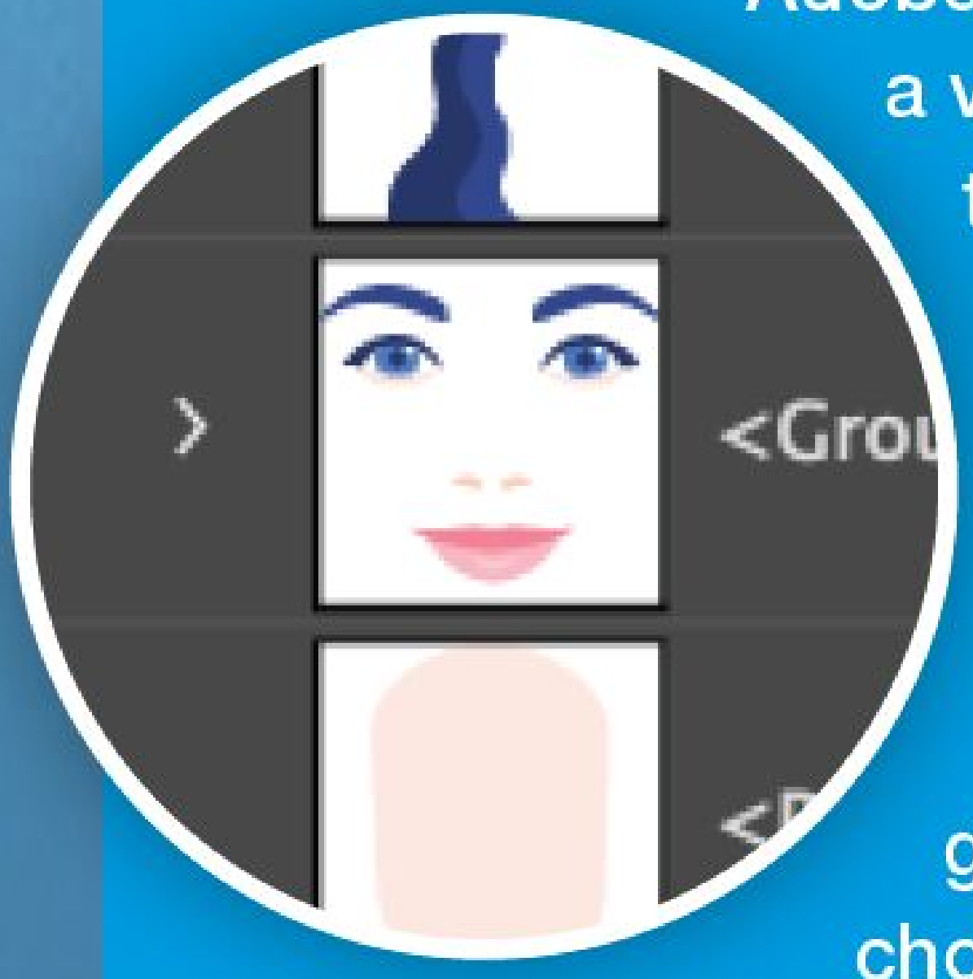
In our example, a number of objects were marked for selection, we rolled the cursor over the plant pot to highlight it, then clicked on it and an active selection was added to the pot. We then copied that selection to a new layer and were able to move the duplicate to a new position. The same was done with the lampshade, in a few clicks, with no need for time-consuming manual selection techniques. It should be noted that this function fairs better with simple, hard-edged, shapes. Things like hair selection are not as refined. It's also worth noting that the Object Selection Tool is also available within the Select and Mask tool too. It behaves the same as it does out in the main document.

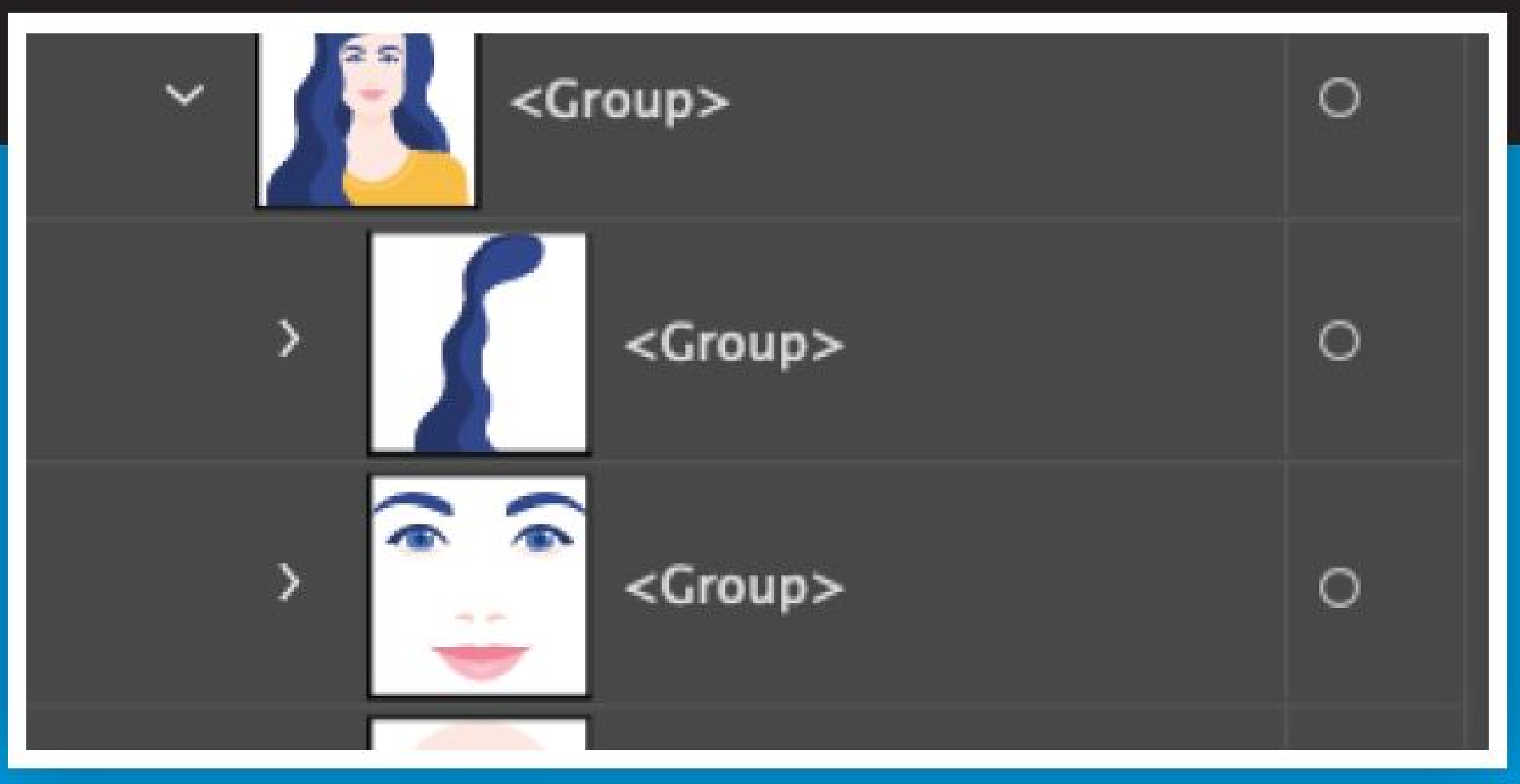


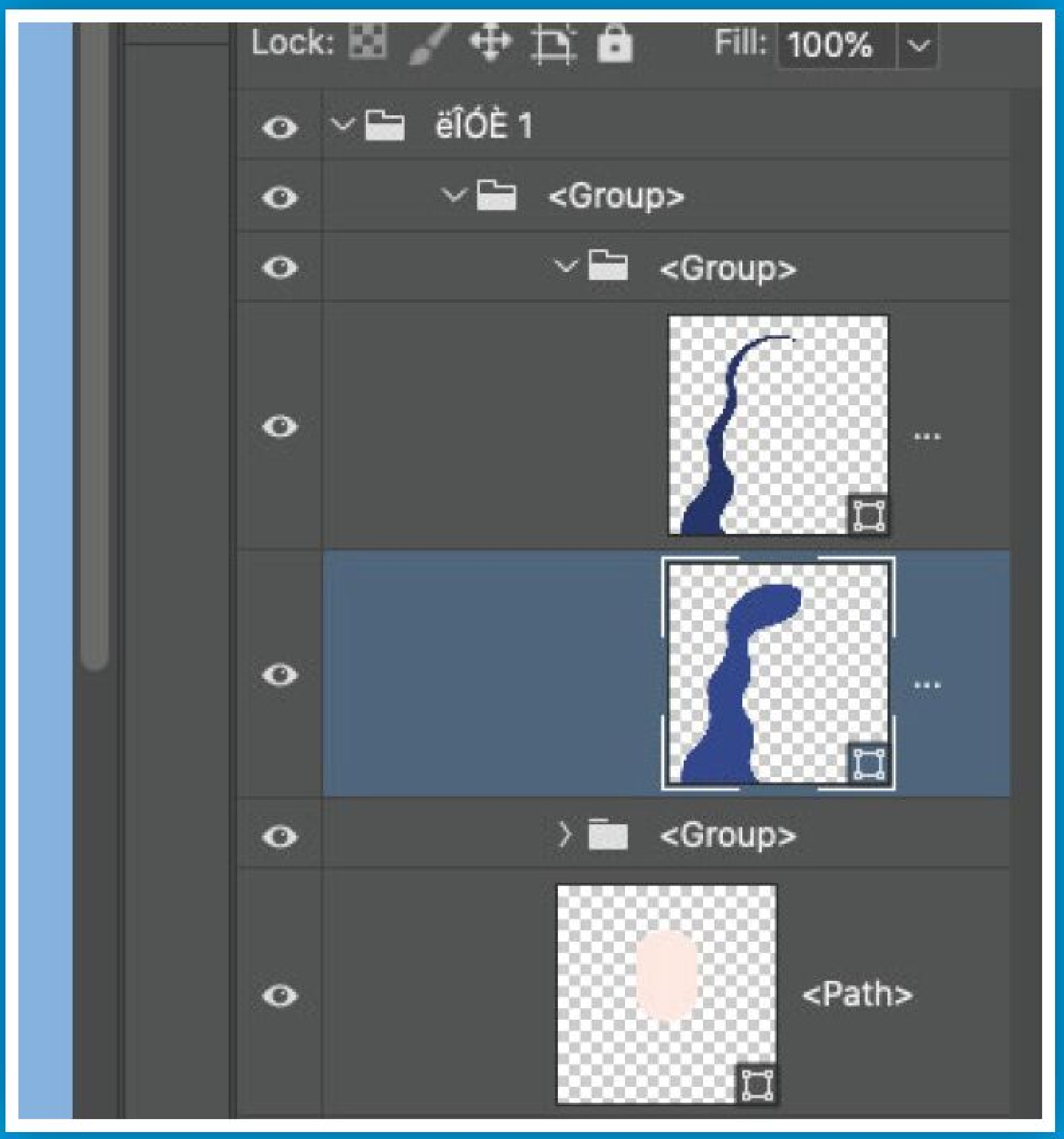


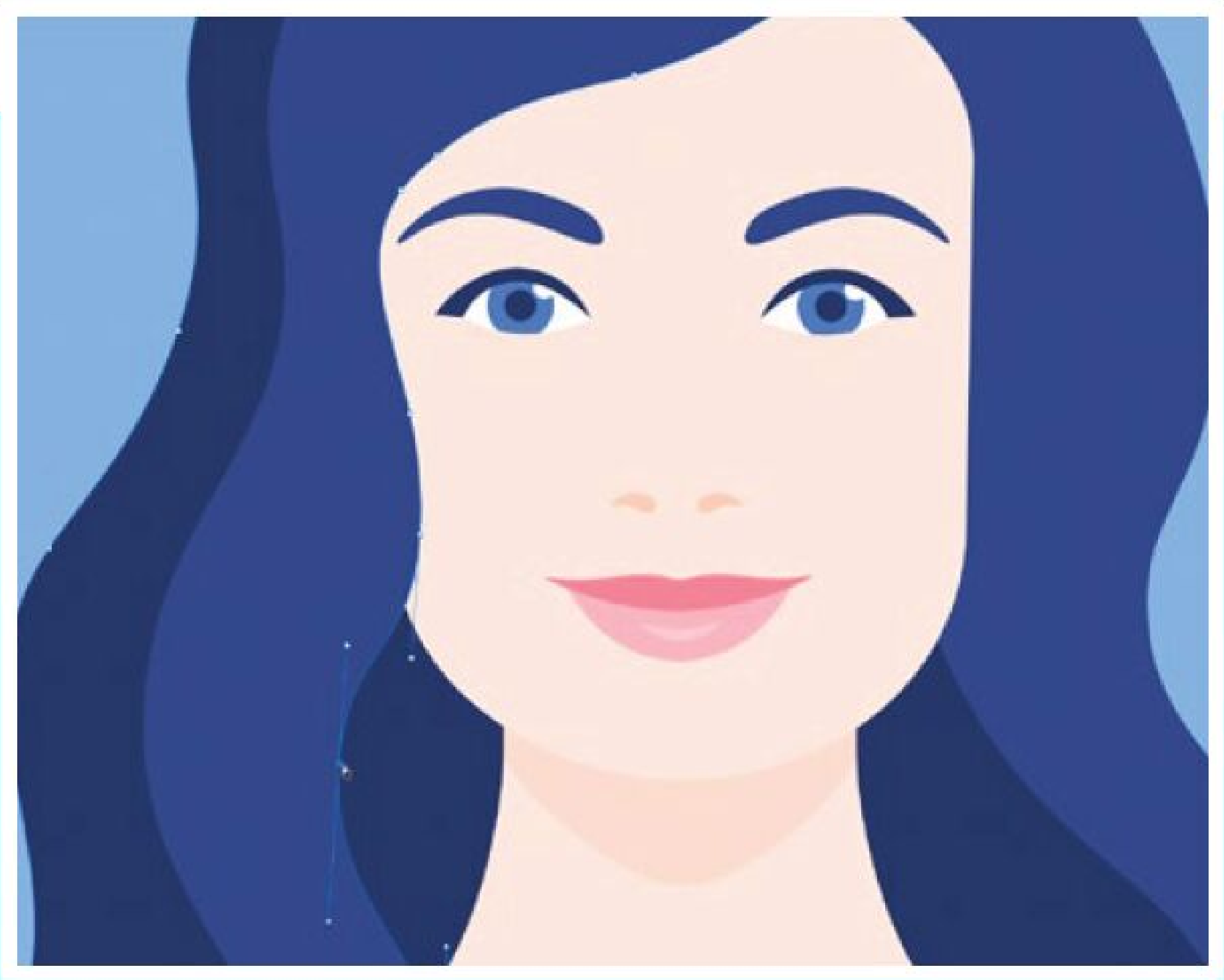


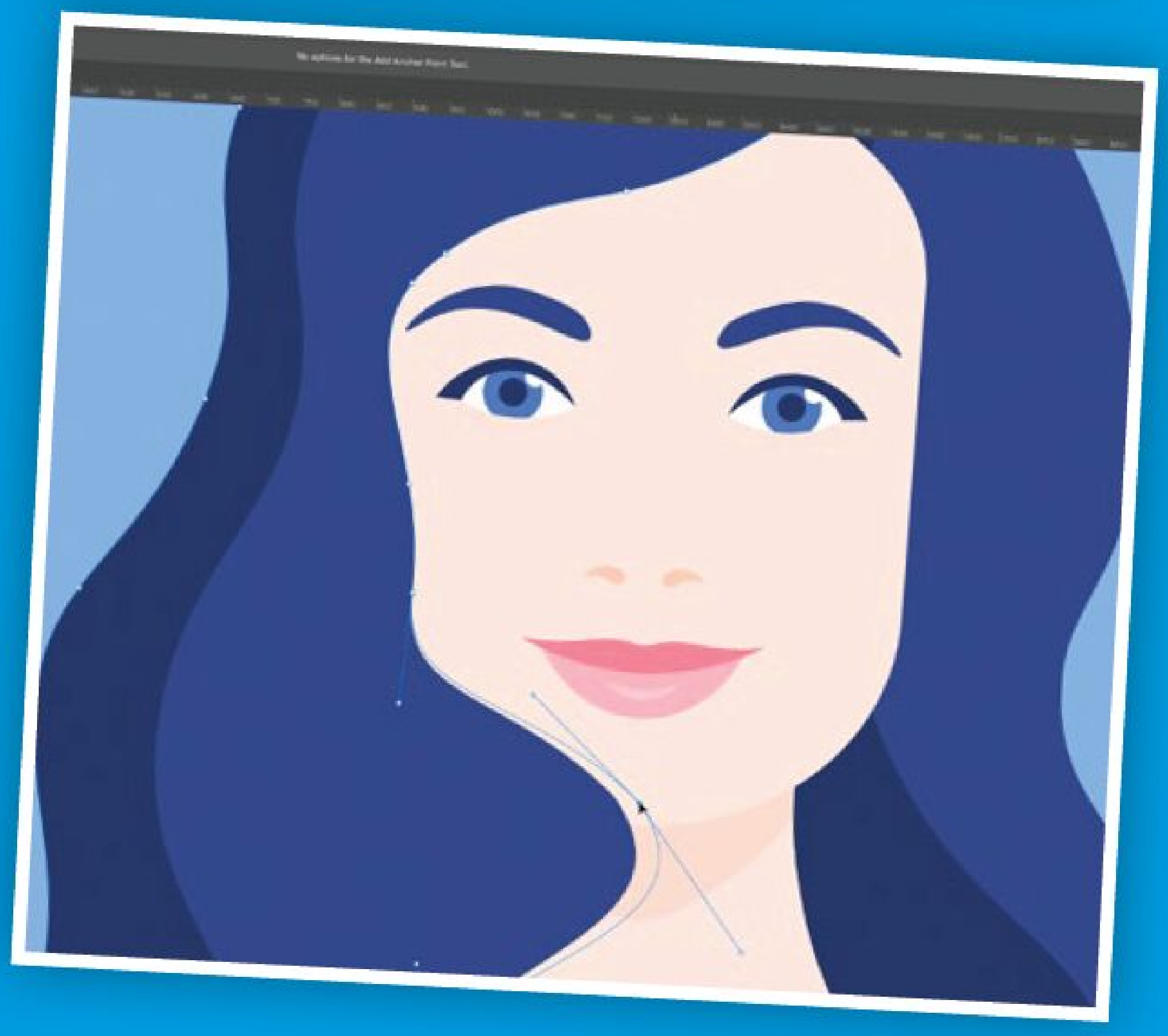
Illustrator Integration









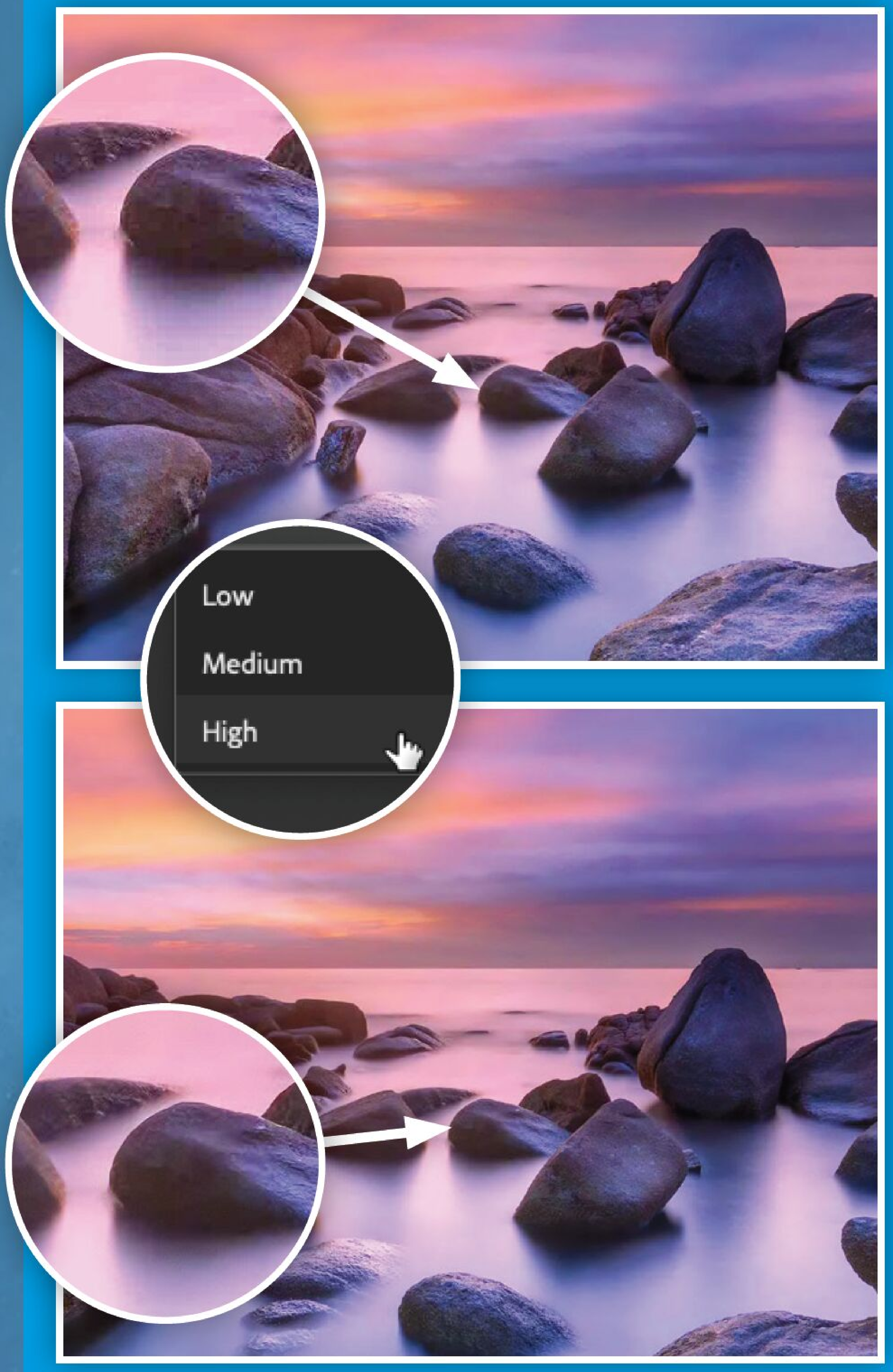


If you use Adobe Illustrator a lot in combination with Photoshop, this could be a very handy update for you. In past versions, if you had created a layered Illustrator file and wanted to open it Photoshop, you had to make do with some limited Copy and Past options. Thankfully, Adobe have come up with a very useful addition to the Copy/Paste function.

In the previous versions, you would open your Illustrator file with its various groups and layers and chosen Select All and then Copy. You then opened Photoshop and created a new document that you could paste your Illustrator file into. At this point, you would have a few Paste options appear in a dialog box. Some of the choices seem somewhat odd, but they included Shape Layer which just pastes a solid box onto your document. Then there is Path which converts the illustrator file into its outline form and pastes that as a bitmap. Pixels just pastes a bitmap version of the original. The latest update has a new option called Layers and this one is much more interesting. When you paste an Illustrator file into Photoshop 2022 and choose the Layers option, it creates a layered document that matches the layers of your original file. Moreover, it doesn't turn the image into bitmaps, it uses Shape Layers which are scalable vectors. You can increase the resolution to any size without loss of quality. Since each layer is a shape, it can edited using the Pen Tool. In our example, we were able to change the shape of the hair using bezier curves and increase the document dimensions from 500 pixels to 2500 pixels with no quality lost. It is a deceptively simple but very powerful addition to the Photoshop armoury.

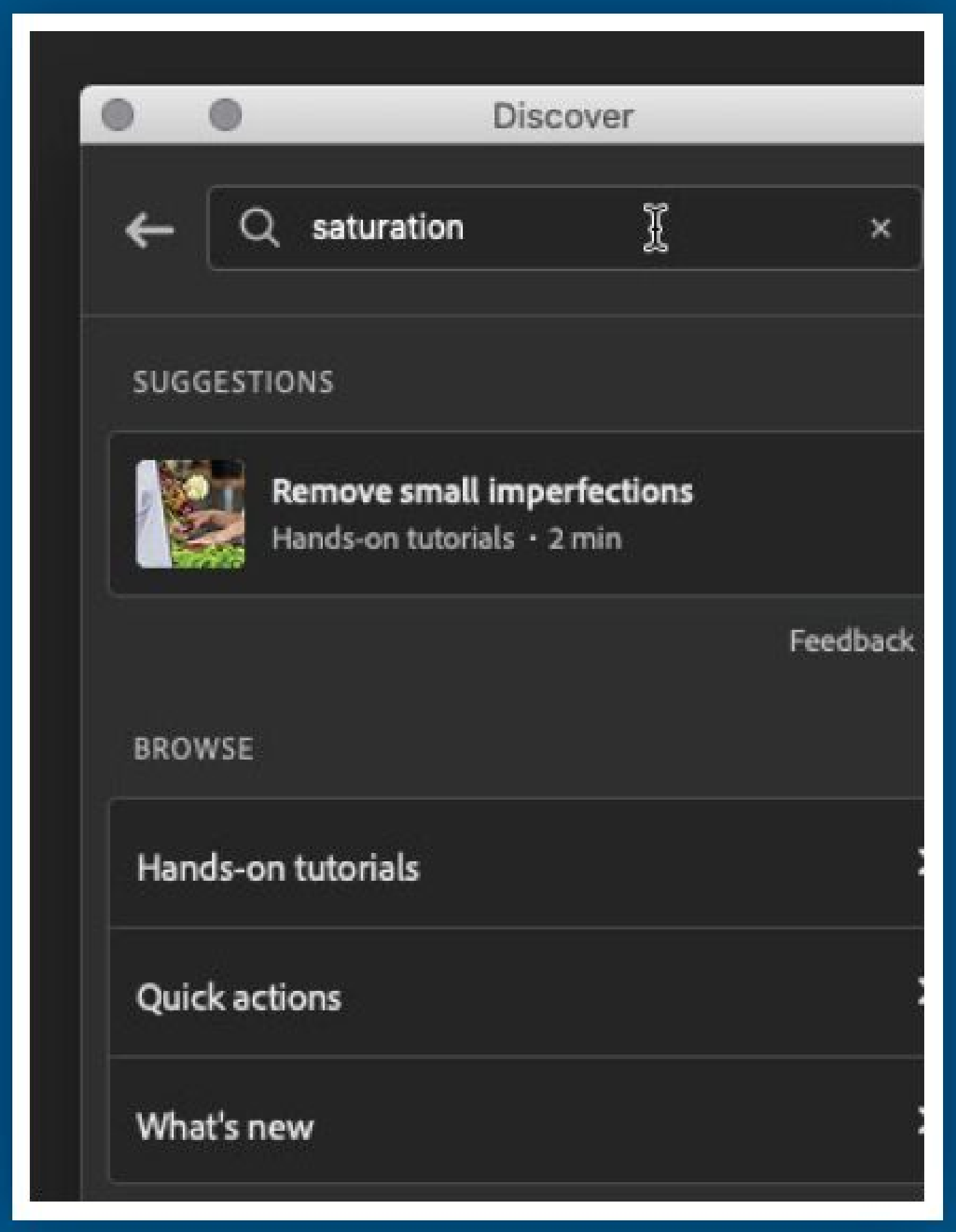
JPEG Artefacts Removal

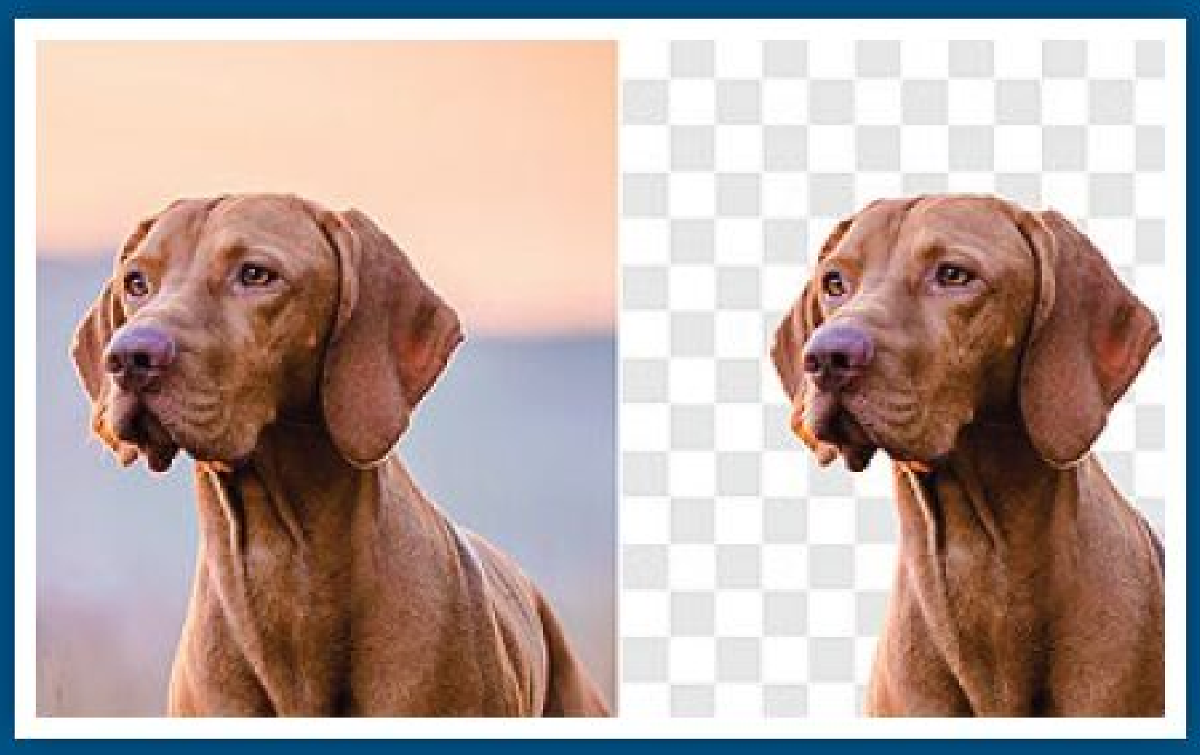
Jpeg compression is a marvellous thing. It can reduce the file size of an image by a huge amount. It is however a lossy format. This means that the image can be degraded if too much compression is used or if an image is re-saved a number of times. As this happens, so-called artefacts appear. Parts of the image start to show areas of heavy pixelation and there can be a large amount of detail lost too. If you have any original images that have been degraded in this way and you do not have access to an original file, you can try to save the image by running it through an artefact remover. Photoshop has added such a tool to the Neural Filters Featured list. We have an example that is badly damaged by heavy compression. Open the filter, choose the Strength of artefact removal you want and let Photoshop do the rest. As ever, results will vary depending on the size of the original image, the amount of damage cause by compression and how much filtering you decide to apply. Our example didn't turn out as bad as expected and the artefacts were significantly reduced. Be aware though that your result may look a little soft and painterly, with a reduction in sharp detail.



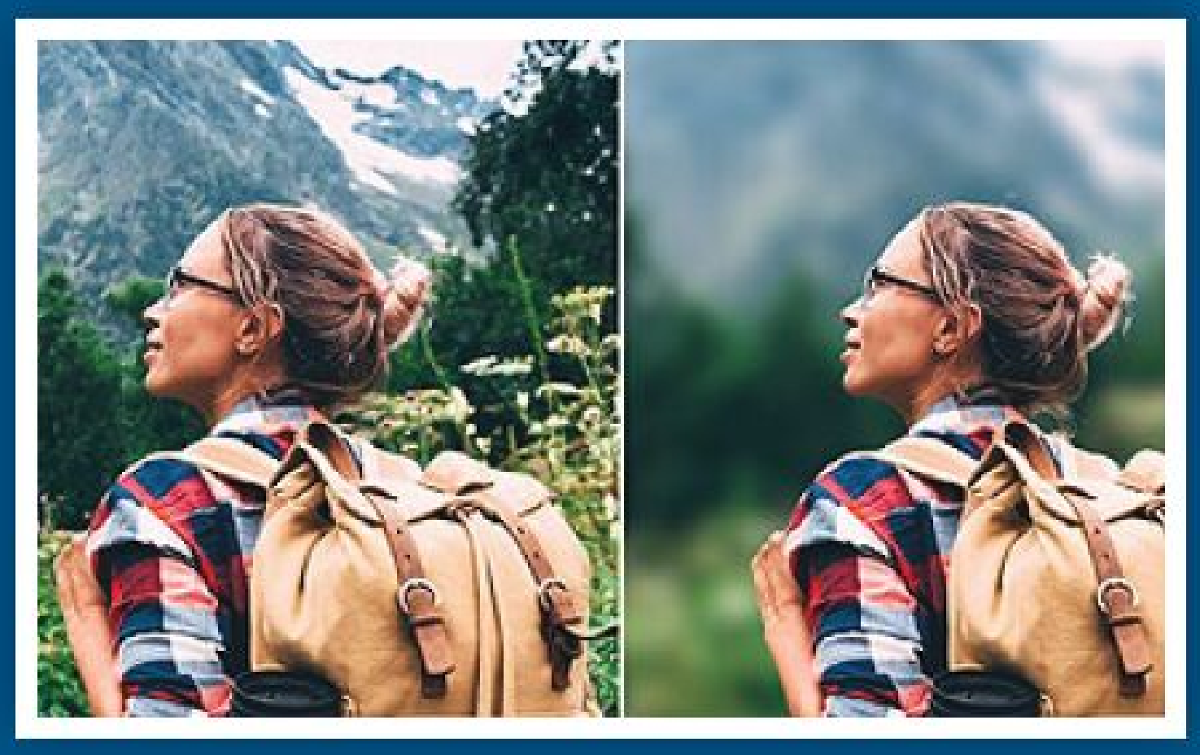
Quick Actions

Quick Actions are very similar in feel to the automated effects available in Photoshop Elements. They are quick in the sense that you simply click once on each effect's Apply button and the effect is added automatically. At the time of writing, there are twenty Quick Actions available. They are accessed via the Help > Photoshop Help menu option which opens the Discover panel. Here are a few notable examples to get you started.

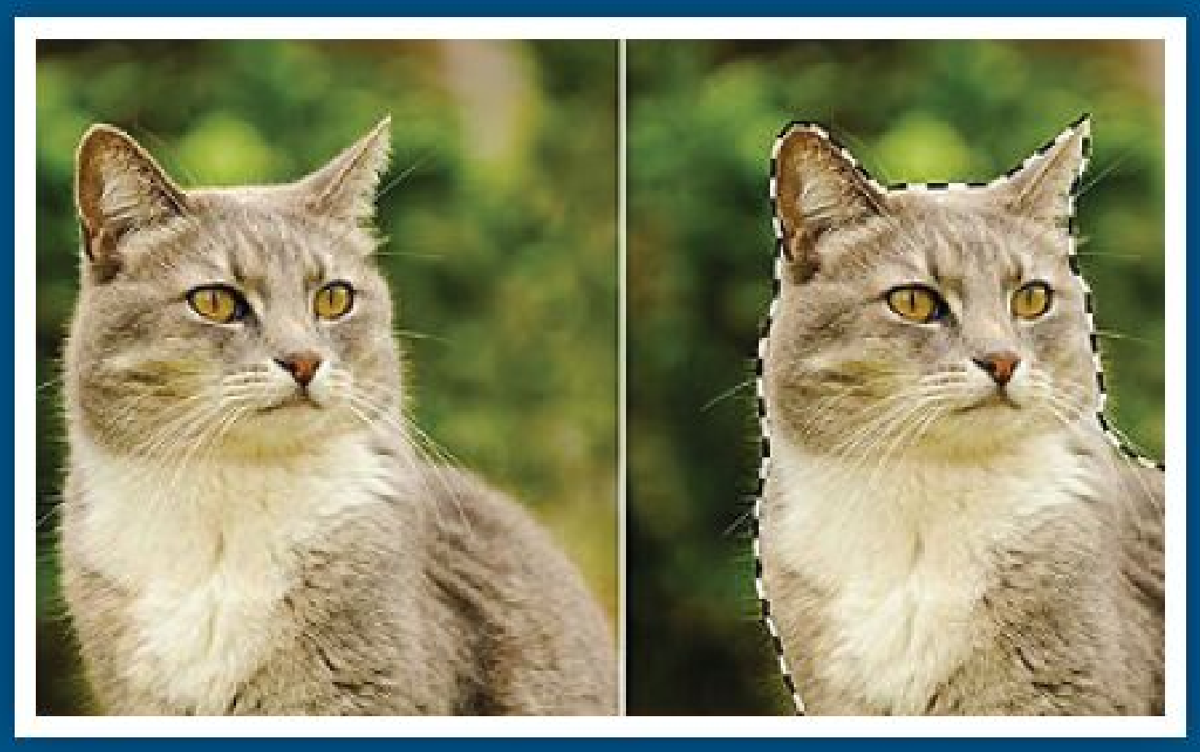




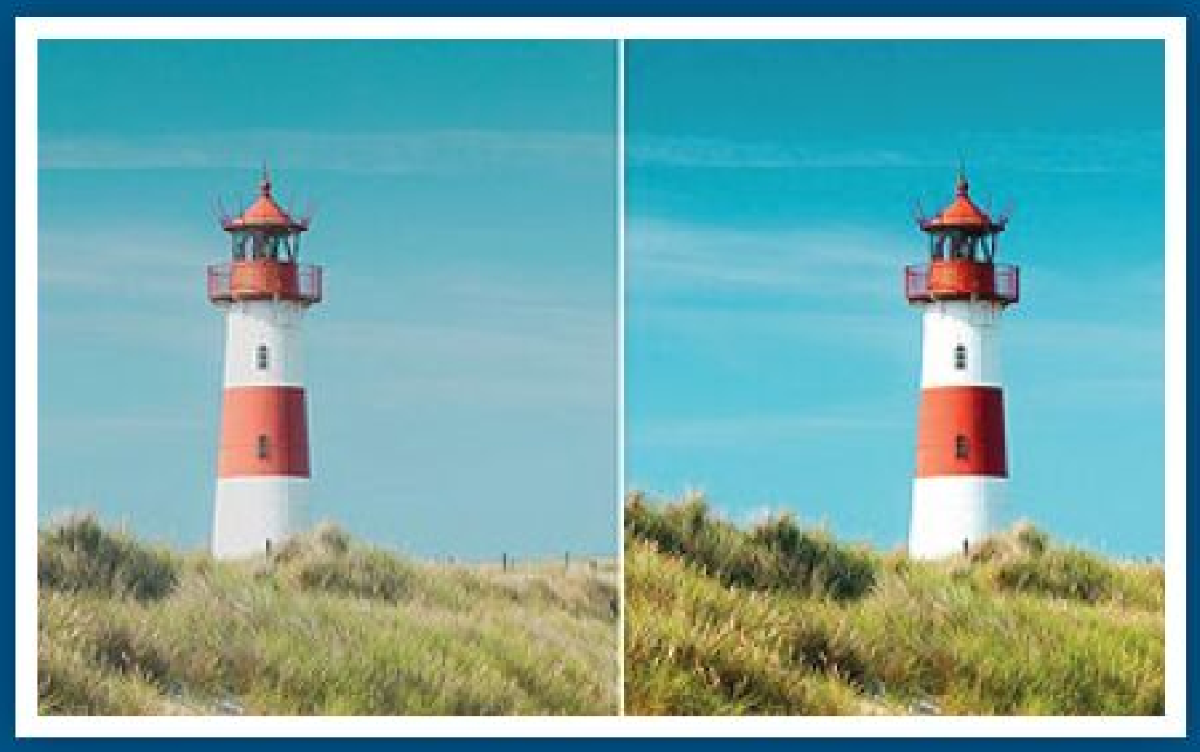
Remove Background
Quickly remove the background from an image.



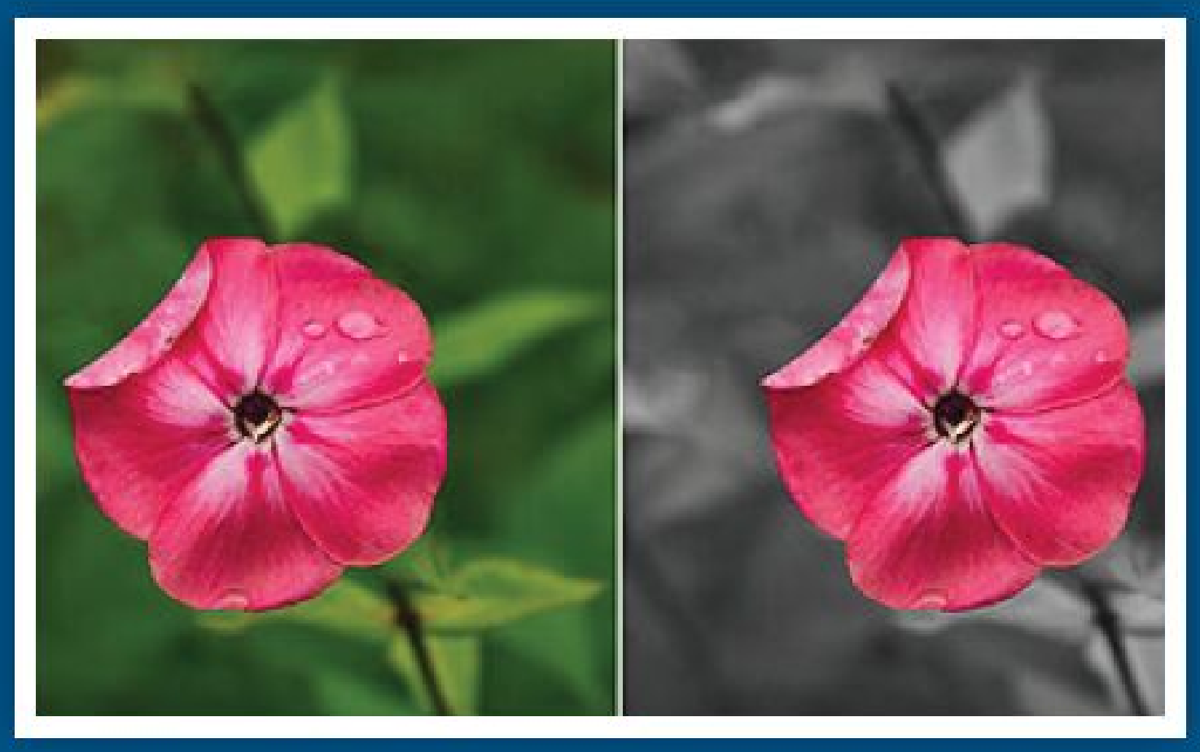
Blur Background
Automatically select the background and apply blur.



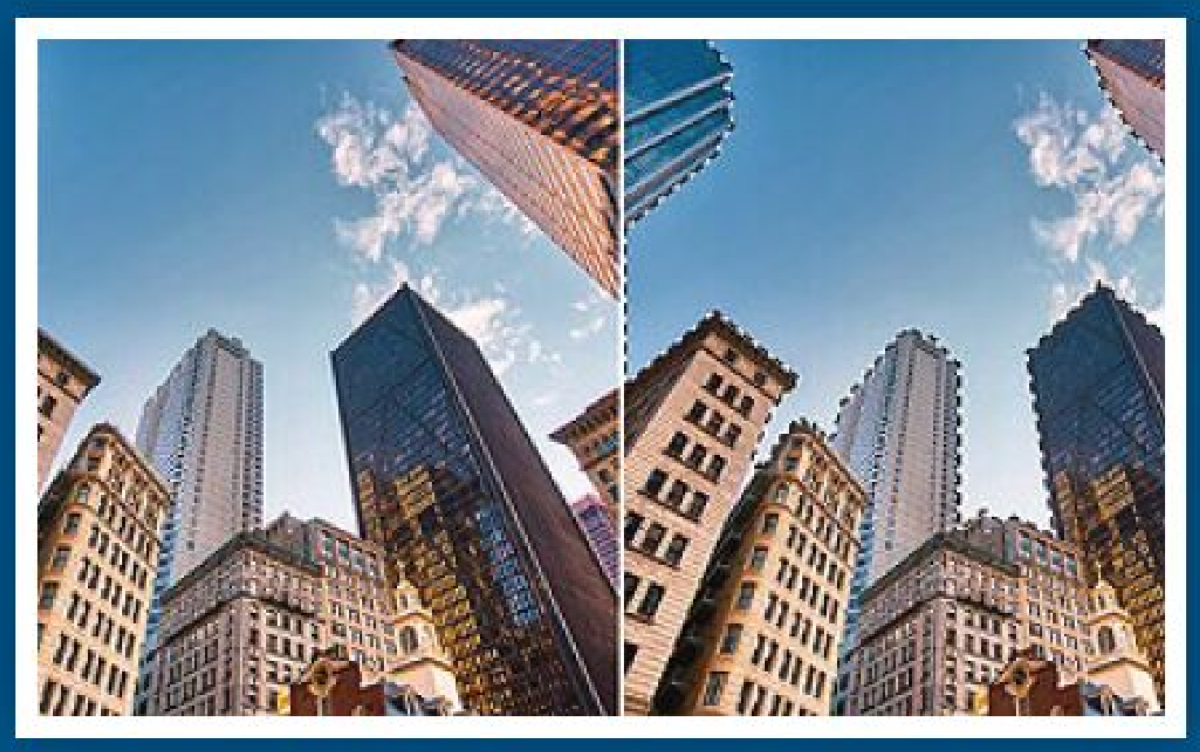
Select Subject
Automatically selects the main subject in your image.



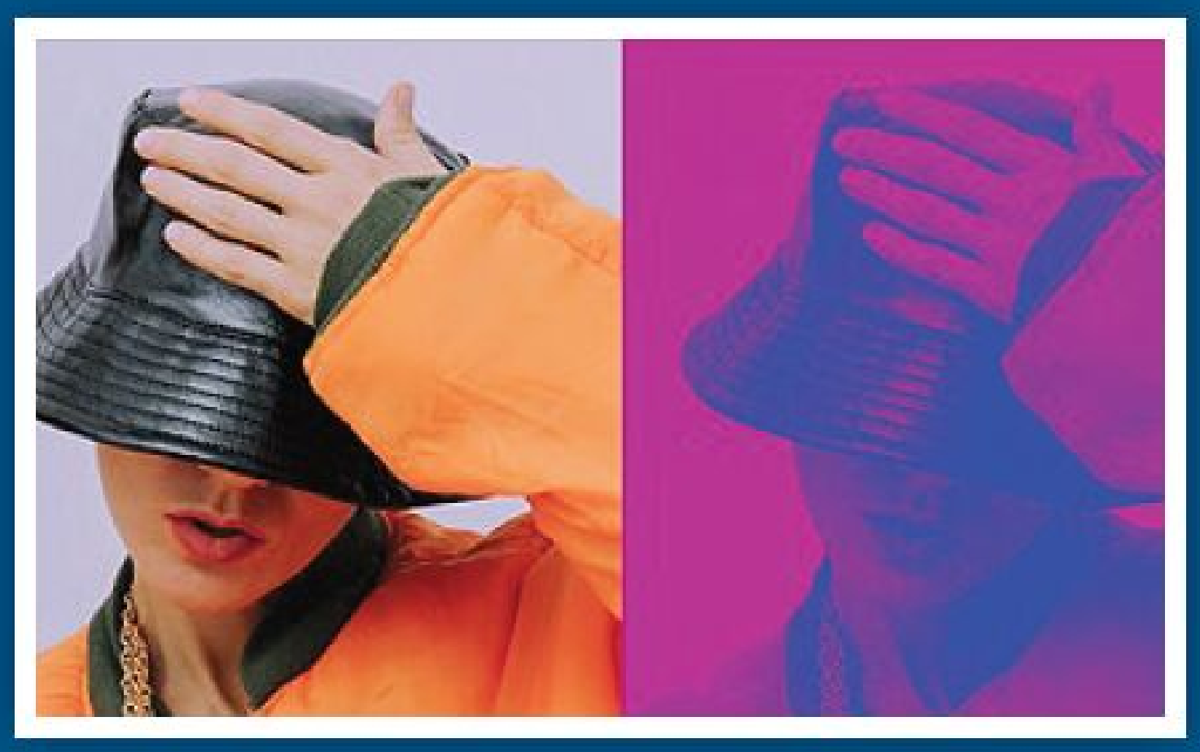
Adjust Lighting
Make changes to your photo so it's brighter and punchier.



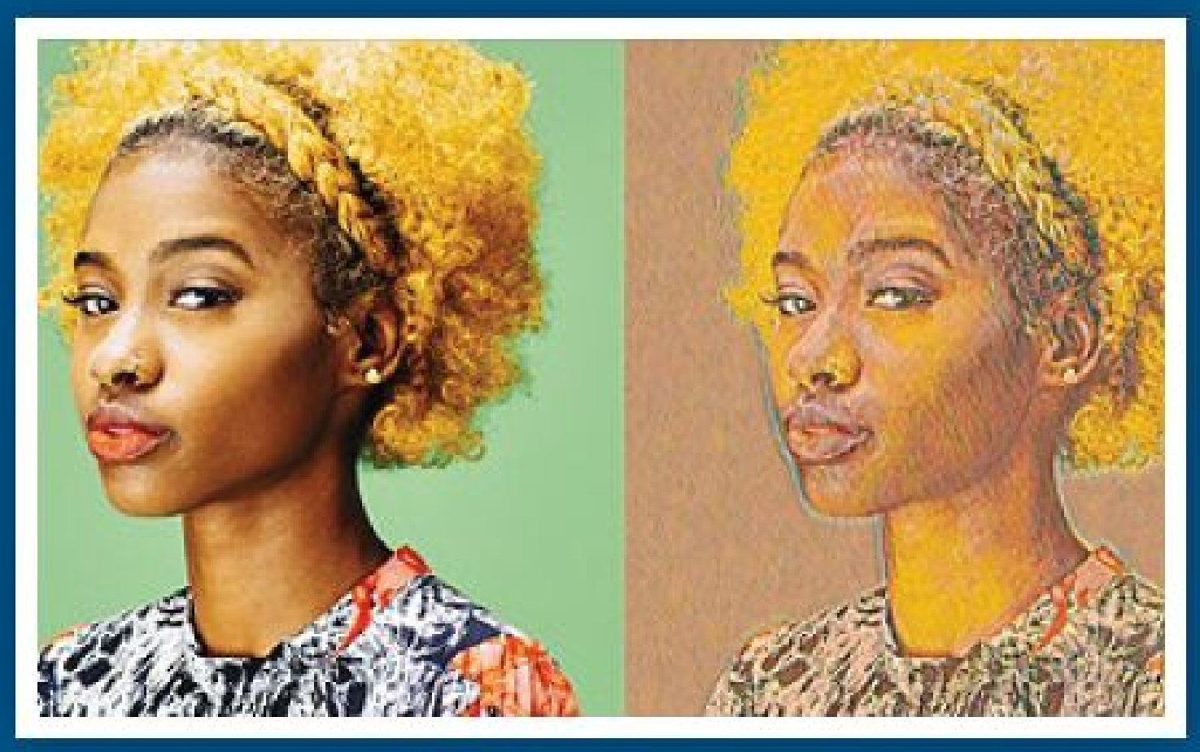
Make B/W Background
Select the background and convert it to black and white.



Select Sky
Selects the sky automatically so you can adjust or replace it.

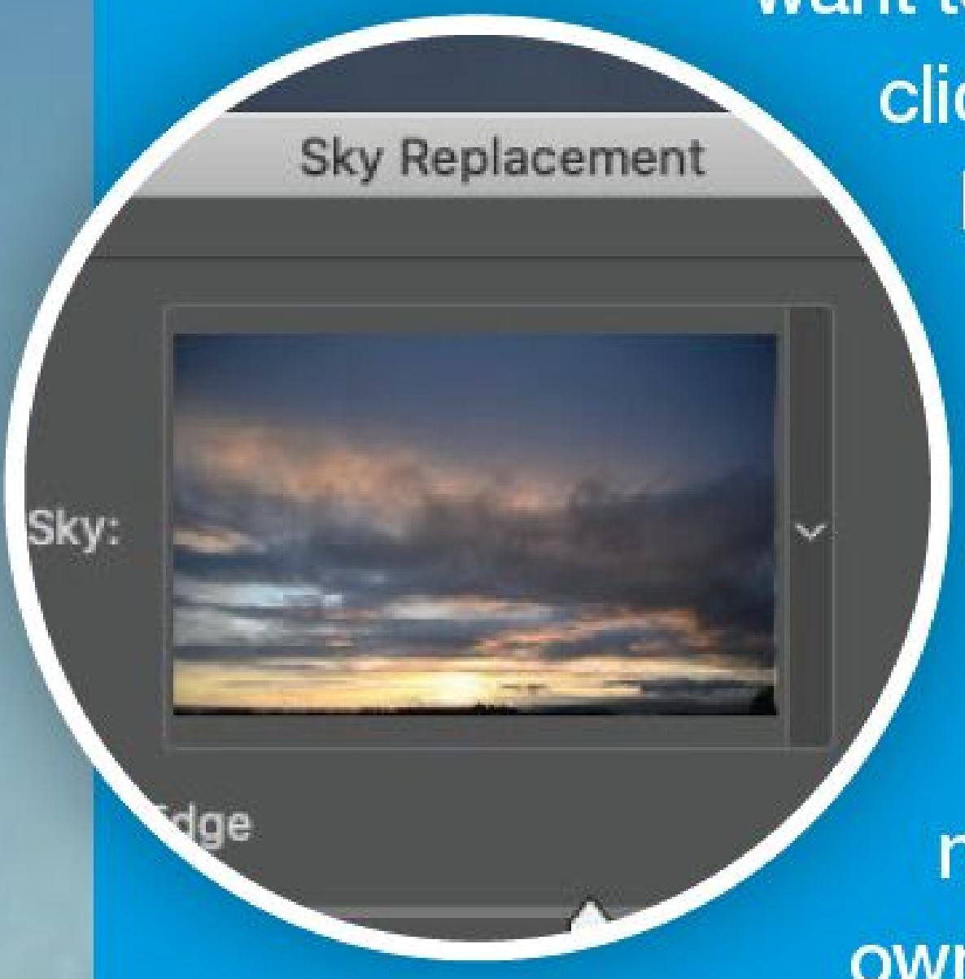


Add Duotone Effect
Create a powerful and dramatic effect with high-contrast images.



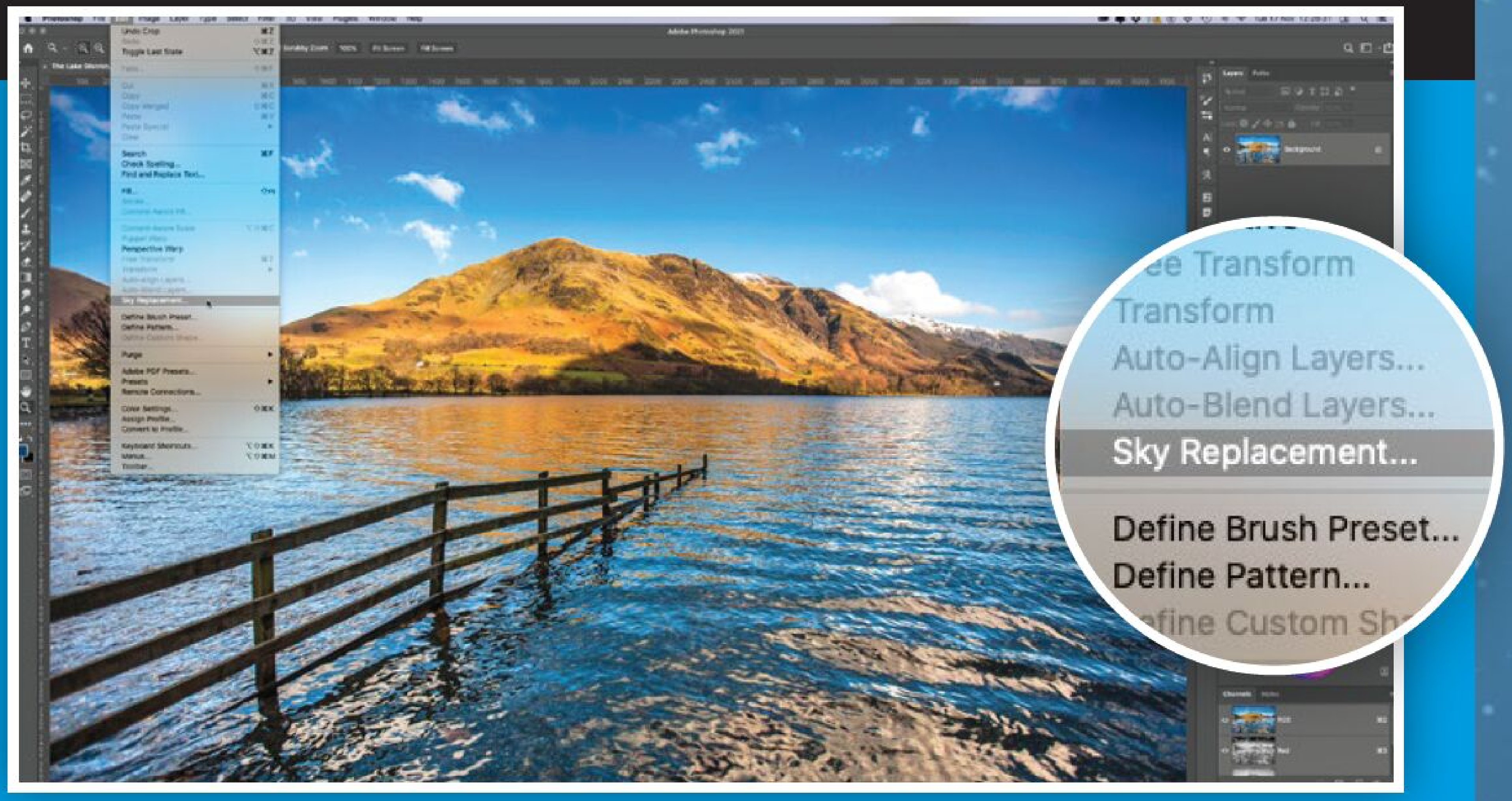
Self-Portrait Filter
Add creative brushwork and bright colours to your portraits.

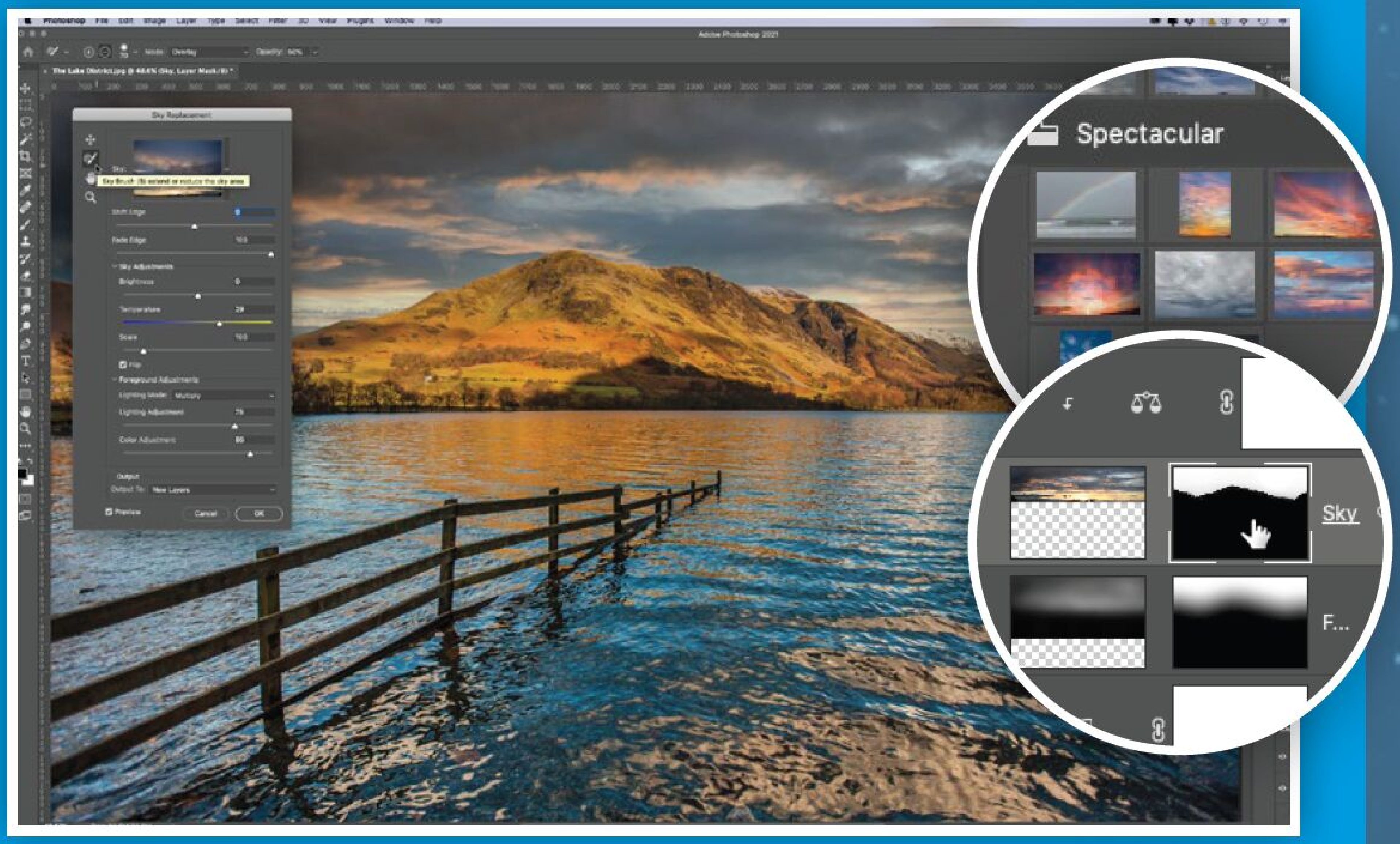
Sky Replacement



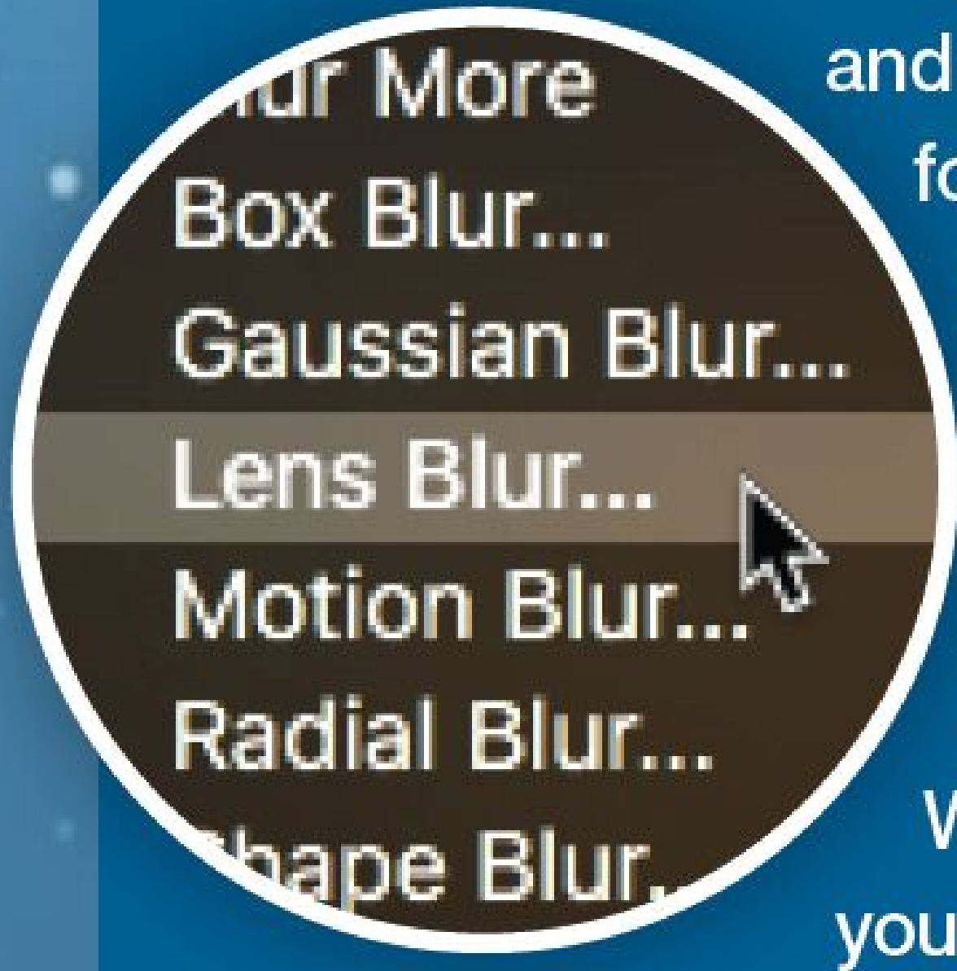
If you have a photograph with a lacklustre sky or you simply want to change the mood of the image, then clicking on this option will bring up the Sky Replacement dialog panel. The image will be scanned to work out the best mask to use to accurately drop in your new sky. Firstly, you can choose from a number of preset skies from the Sky menu. You also have the option to set up named groups of skies or even use your own images by clicking the Create New Sky button and browsing to an image you want to use. That image will be added to your library ready to be used.

The Sky Replacement panel has a number of useful options to help you get the most out your new sky. You can alter the Shift Edge or Fade Edge parameters to help blend your foreground and sky together. Sky Adjustments lets you alter the Brightness and Temperature of the sky, as well as the Scale. If your original image has sunlight coming from a very obvious direction, you can use the Flip button to flip the new sky horizontally, if that better suits the light. Altering the Lighting Mode, Lighting Adjustment and Colour Adjustment lets you more closely match the colour tones seen in the sky for a better overall look to your image. In the upper right of the Sky Replacement panel, there are a couple of tools to help you. The main one is the Sky Brush, which lets you paint in or paint out areas of the sky if you feel it is in need of some refinement. Finally, at the bottom are your Output options. Here you can choose how your new creation will be output. New Layers will create a new layer group into which the new sky, its masks and colour adjustments will be placed for you to edit further, if you want.

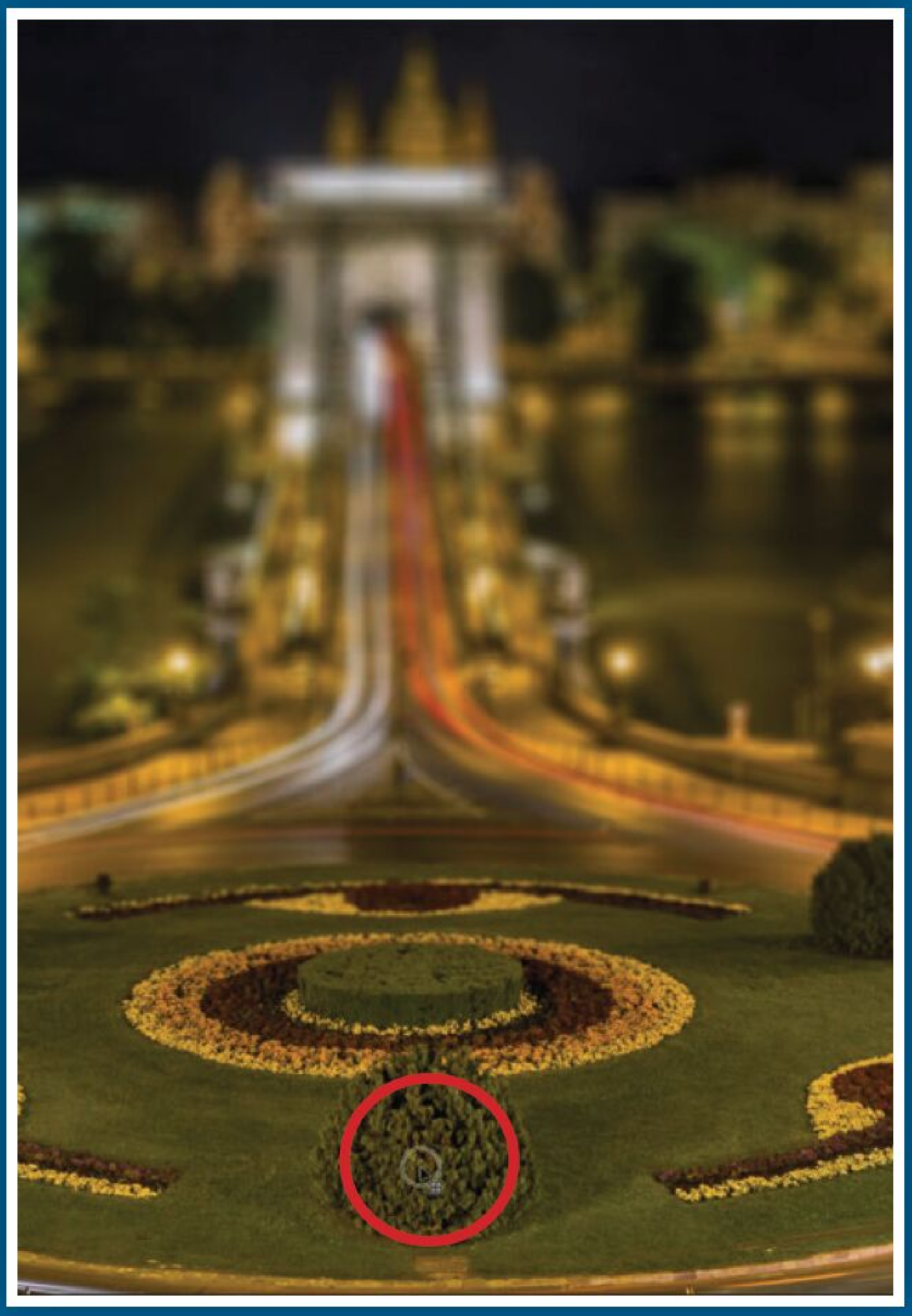


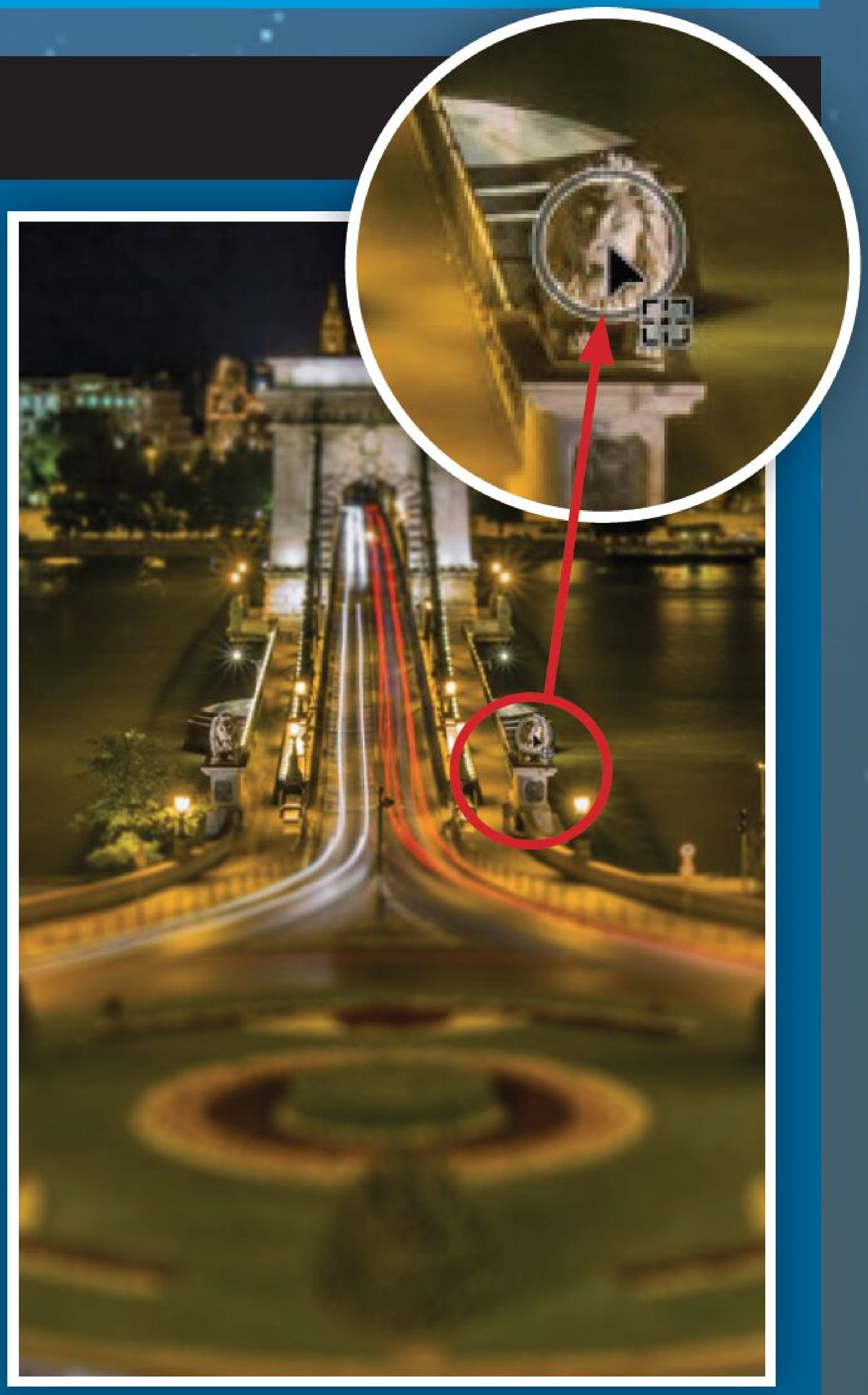


Lens Blur



This is a useful little option if you like working with depth maps to achieve selective focus effects. We have an aerial image of a bridge and formal garden area in the foreground on a layer. We've gone to the Channels layer and added a new Alpha 1 channel with a black grad fading up to about halfway into the frame. With your image active, if you go up to the File Menu and choose Filter > Blur > Lens Blur, it will take you to the Lens Blur Tools. Under Depth Map, select Alpha 1 as your Source and then click the Set Focal Point button. Now you can define where the Depth Map appears by just clicking anywhere on the image. If you click over the head of the lions on the bridge, they become the sharpest part of the image and the rest fades out to a soft blur based on your Radius setting. You can use the Blur Focal Distance slider, but clicking on the image is much faster.





Welcome to Photoshop

Over the years, Adobe has continually refined and honed the tools available in Photoshop, but at its heart, the basics have always remained the same. You can simply crop a photo, create a complex and multi-layered artwork or anything in between. Lets take a look at what Photoshop is all about.

The History of Photoshop

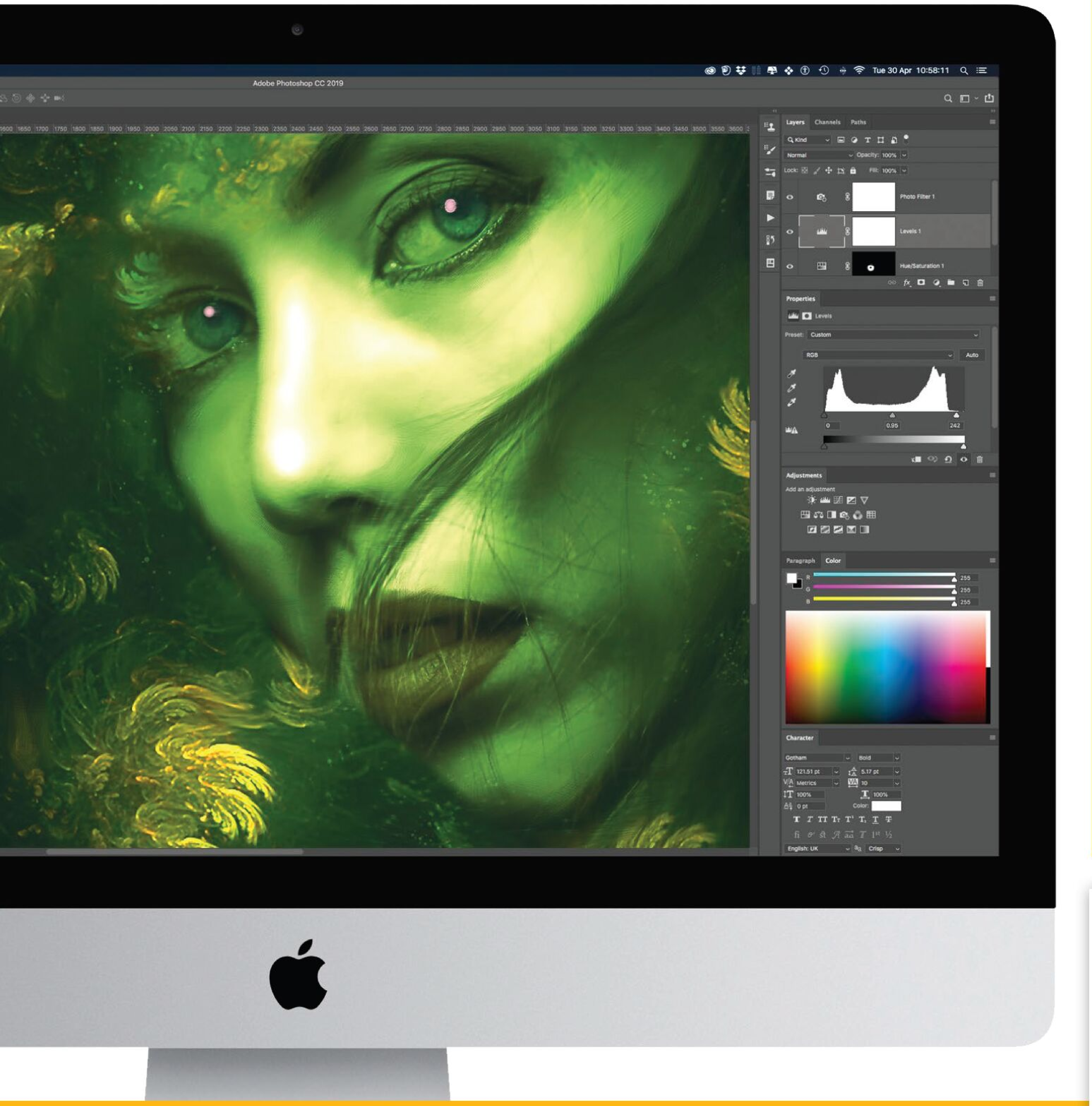
Before we begin, here's a little background information

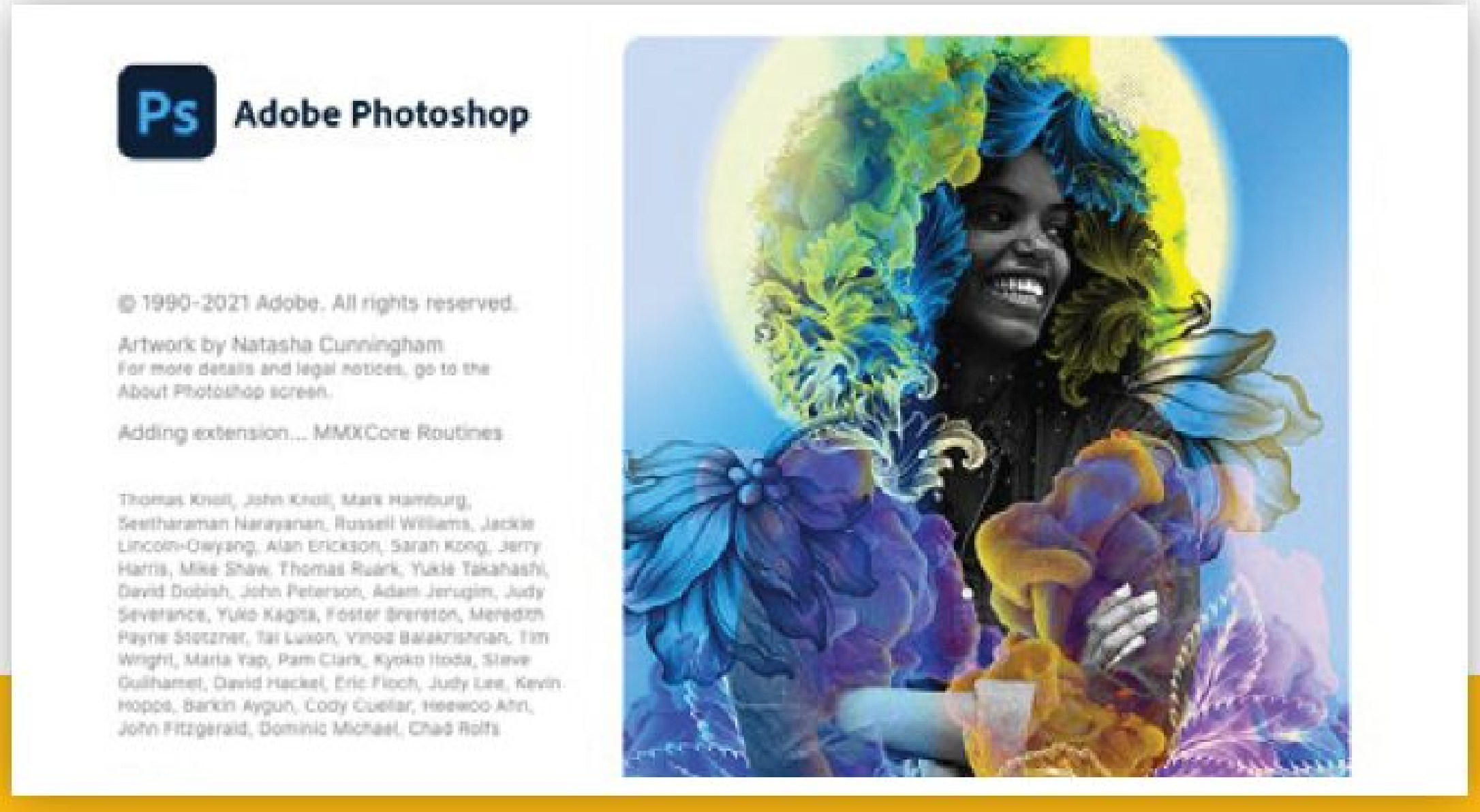
Thomas and John Knoll created Photoshop in 1988 with the release of Photoshop 1.0 following in February 1990. It is a raster graphics editor and has become the predominant industry standard for digital image editing.

At its heart, it has a suite of tools that allow the user to edit, assemble and compose images using multiple layers and masks. It is this use of layers and masks that are the core features of Photoshop's power. Such layer-based editing means you can build very complex images and create incredible works of art using this method.

Photoshop's Strengths

- Photoshop is a pixel-level editor. Where Lightroom allows you to adjust pixels in an image, Photoshop lets you move them and manipulate them in a way that's nothing short of magical.
- Photoshop allows multiple layers to be applied to an image. You can keep images and edits on separate layers and modify them accordingly and independently. This is the basis of non-destructive editing.
- It's huge. Mind-bogglingly huge. The toolbox alone is the stuff of legend and contains everything the professional designer and photographer would ever need from a piece of software.
- You can record specific actions within Photoshop, allowing you to apply those actions to other images with a click of a button.
- You're able to blend many different layers together, masking areas of an image to protect it from being edited, even down to the pixel level.
- Almost anything is possible in Photoshop. If you can imagine a scene, then you're able to turn your wedding photos into a dramatic space battle or have a picture of the kids playing with a T-Rex. Remove objects, add objects, touch up skin tones, the list goes on and on.





Adobe Photoshop

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Artwork by Natasha Cunningham
For more details and legal notices, go to the About Photoshop screen.

Adding extension... MMXCore Routines

Thomas Knoll, John Knoll, Mark Hamburg, Seetharaman Narayanan, Russell Williams, Jackie Lincoln-Owyang, Alan Erickson, Sarah Kong, Jerry Harris, Mike Shaw, Thomas Ruark, Yukie Takahashi, David Dobish, John Peterson, Adam Jerugim, Judy Severance, Yuko Kagita, Foster Brereton, Meredith Payne Stotzner, Tai Luxon, Vinod Balakrishnan, Tim Wright, Maria Yap, Pam Clark, Kyoko Itoda, Steve Guilhamet, David Hackel, Eric Floch, Judy Lee, Kevin Hopps, Barkin Aygun, Cody Cuellar, Heewoo Ahn, John Fitzgerald, Dominic Michael, Chad Rolfs

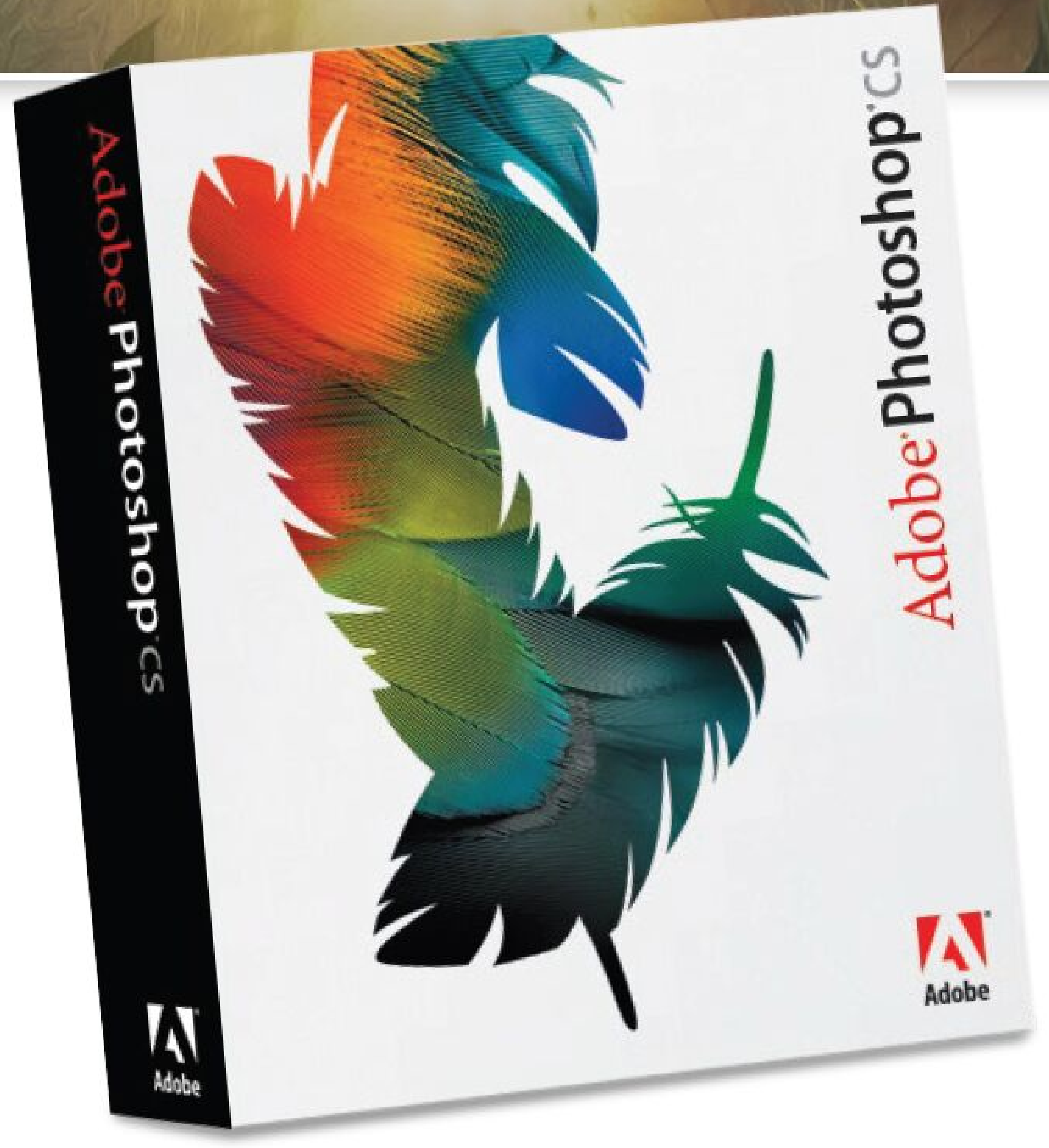
Photoshop: The Power to Create

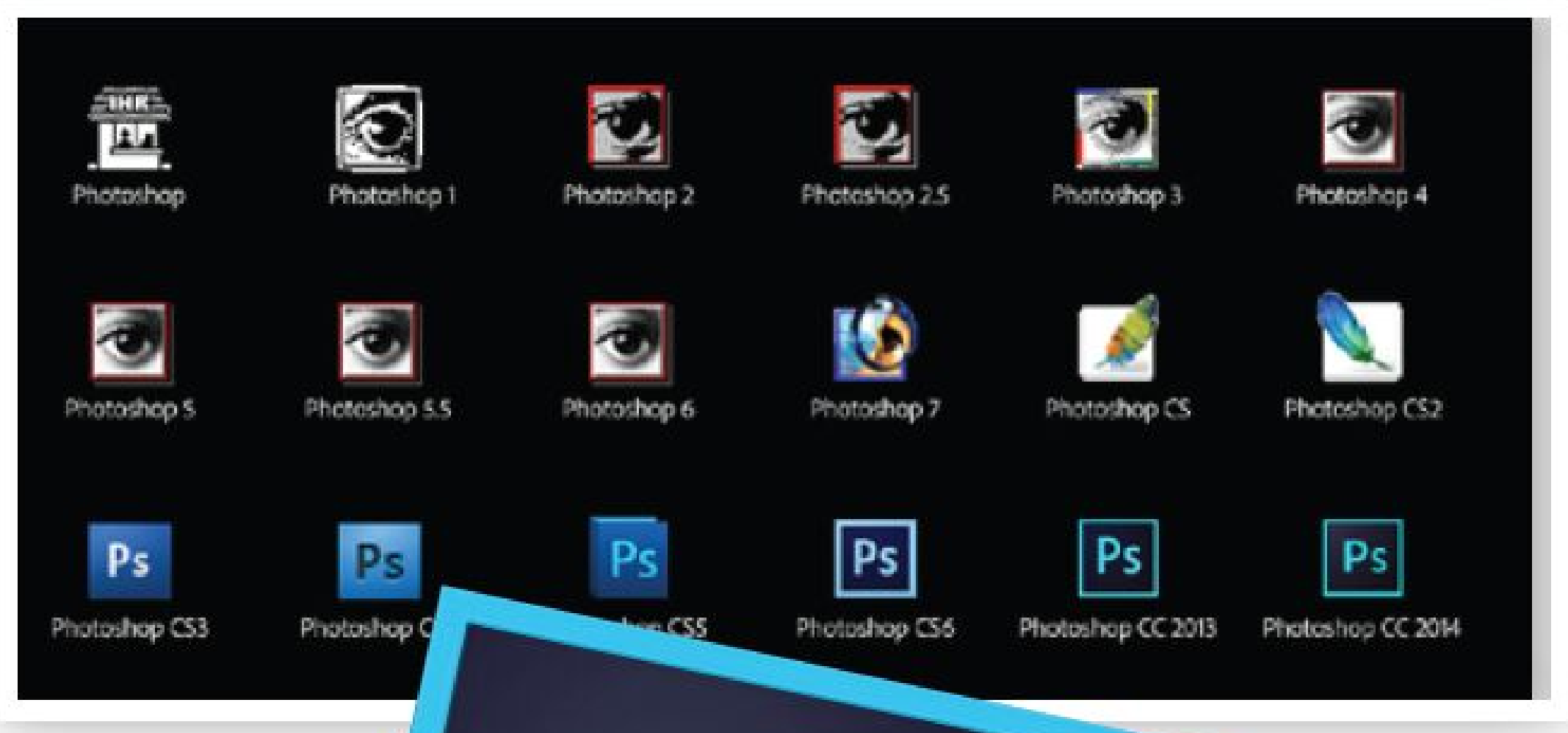
The Tools for the Job

Photoshop also has a large variety of tools that allow the user to edit their images in numerous ways. Broadly speaking, the tools cover areas such as drawing, painting, navigation, content selection, text, masking and retouching. Many of the tools have additional variants that allow you to perform different tasks and functions.

As well as the ability to create pixel-based images and art, it can also create and manipulate text and handle a number of vector graphic formats, including EPS files and Adobe Illustrator files. Older styles of Photoshop had extended versions that allowed the creation and handling of 3D graphics, whereas Photoshop CC, the cloud-based subscription service version, has 3D capabilities built in as standard. It can also, to a limited degree, import and edit video files.

The program's main functionality can be enhanced with the addition of numerous, small add-on effects and programs called plug-ins. Although Adobe has a number of plug-ins, such as Adobe Camera Raw, it is mainly third party companies that develop them. Most of the plug-ins require specific versions of Photoshop to run, but a few of them can also act as stand-alone image editing applications.


Adobe Photoshop CS
Adobe Photoshop CS
Adobe
Adobe


Photoshop
Photoshop 1
Photoshop 2
Photoshop 2.5
Photoshop 3
Photoshop 4
Photoshop 5
Photoshop 5.5
Photoshop 6
Photoshop 7
Photoshop CS
Photoshop CS2
Photoshop CS3
Photoshop C
hop CS5
Photoshop CS6
Photoshop CC 2013
Photoshop CC 2014

Formats and Versions

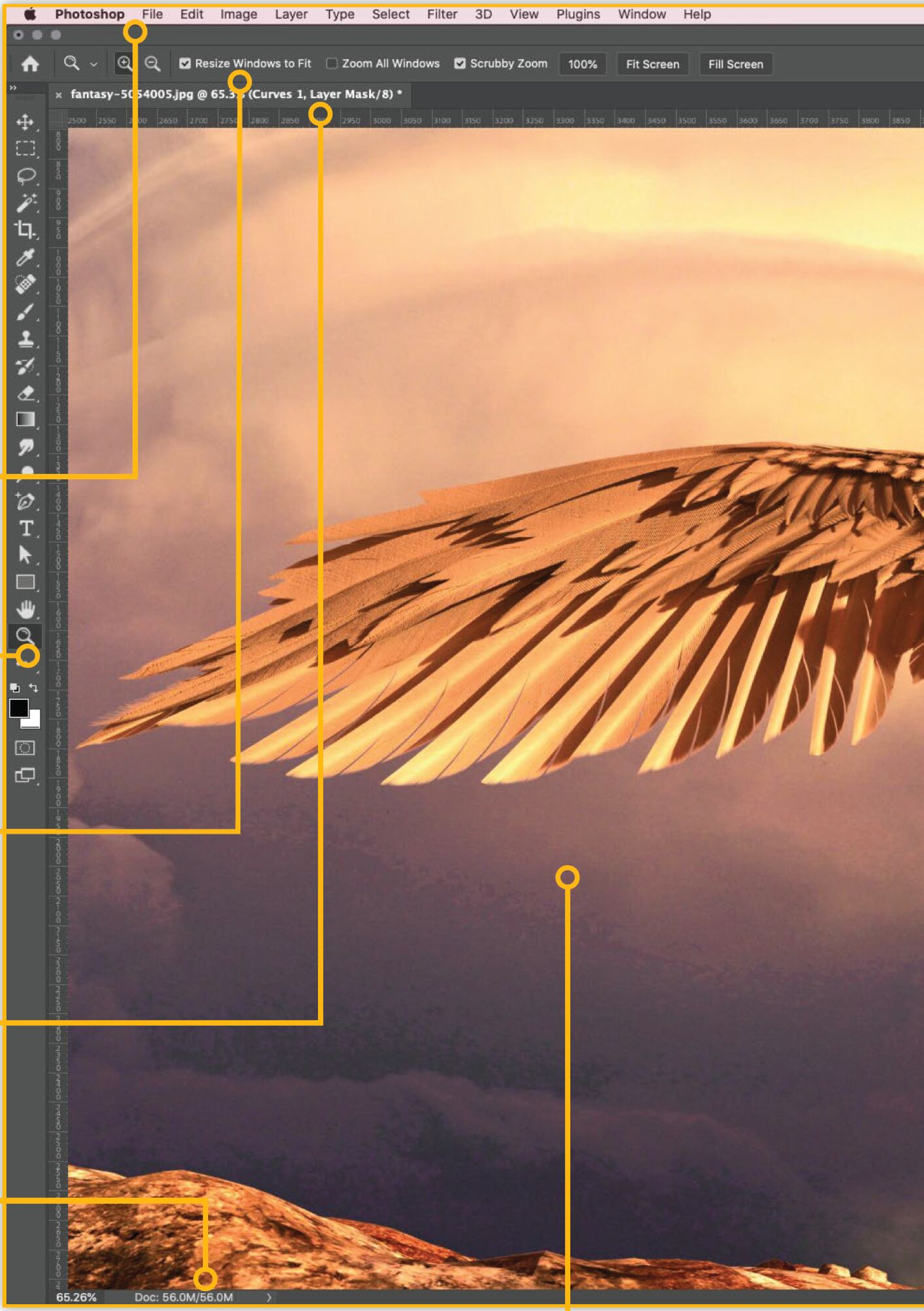
When a Photoshop document is saved, it creates a default file that has the .PSD file extension. This stands for Photoshop Document and it contains all of the layers, adjustments, masks, transparent items and other content that make up the finished document. There is another Photoshop file format known as .PSB, which stands for Photoshop Big. This is a large document format that lets you use vastly increased image dimensions and file sizes.

The program has had a large number of updates and version numbers. In 2003, the numbers were replaced with CS plus a number, to reflect its current Creative Suite branding. It wasn't until 2013, when Adobe changed its business model to subscription-based rental and the introduction of the Creative Cloud brand, that CS was replaced by the suffix CC which has recently been dropped altogether. Photoshop is currently in stable release 2022 (23.1.0).

Main Interface

This is Photoshop's graphic user front end

Photoshop has a great interface, with a dark slate grey work area, slightly lighter menu and palette bars and sharp white text. It looks great and really makes photos stand out from the background. Let's see what it has to offer.


Photoshop
File
Edit
Image
Layer
Type
Select
Filter
3D
View
Plugins
Window
Help
☑ Resize Windows to Fit
☐ Zoom All Windows
☑ Scrubby Zoom
100%
Fit Screen
Fill Screen
(Curves 1, Layer Mask/8) *
65.26%
Doc: 56.0M/56.0M

Menu Bar

You'll find all the menu options here and many more nested menus to control all aspects of Photoshop. Read on for more details.

Tool Palette

Here you'll find your main editing tools. The following pages look at the individual tools and what you can do with them.

Tool Option Bar

For each tool on the palette there are options, such as brush size or softness. You'll find them in this area.

Document Window

Each window you open will have its own tab to identify it. It includes the document name, current scaling and colour space being used.

Document Details

Here you'll find the compressed and real size of your document. You can also call up other information such as document pixel dimensions.

Active Image

The new interface provides a larger area to work on your images, with a darker background colour.

USEFUL TIP

You can set up your own workspaces to reflect the way you work and save them so that you can quickly switch from one to another.

Rulers

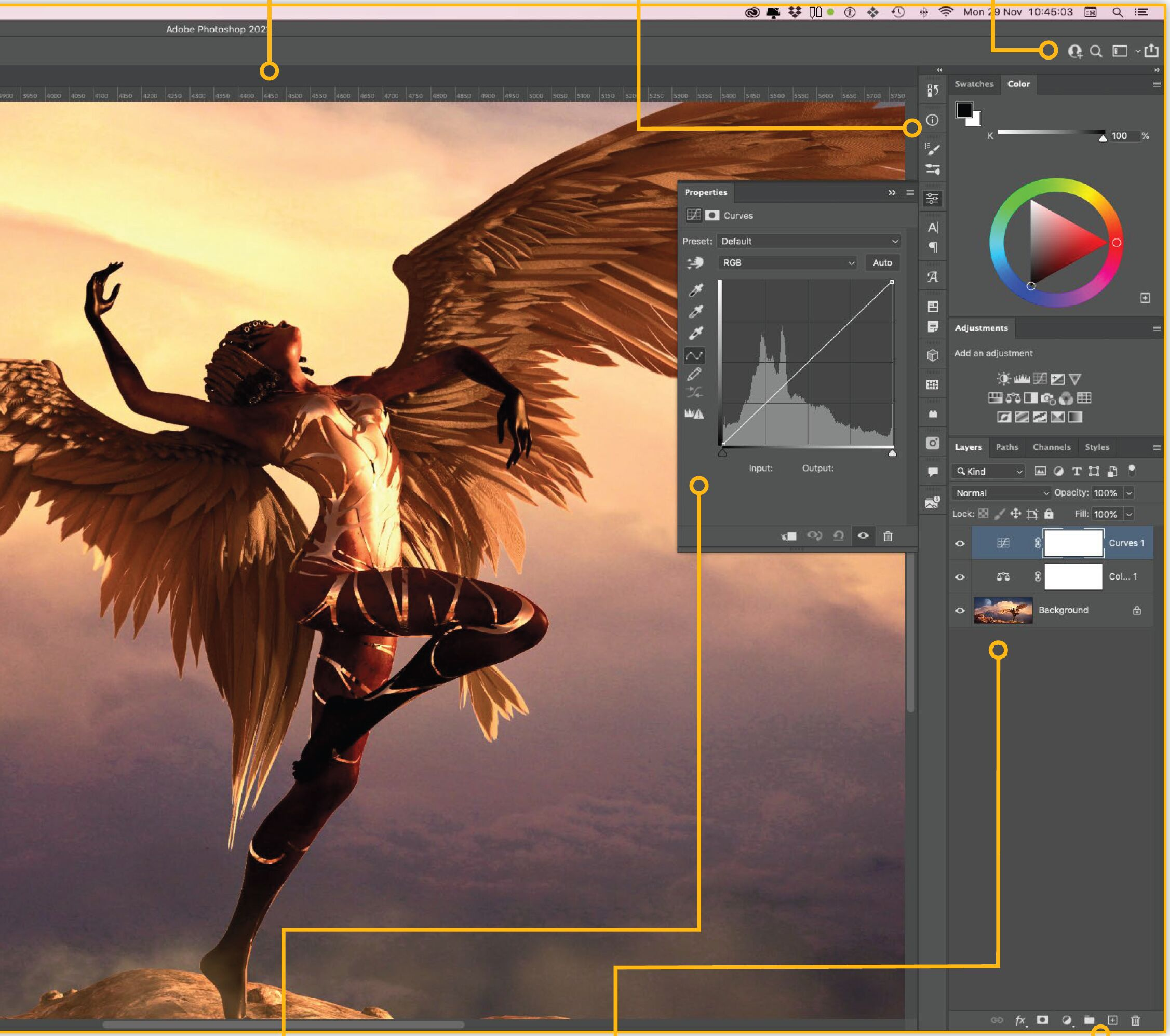
Use these to accurately measure positions on your image and drag guidelines from here to help line up text and layers.

Palettes

There are a number of interchangeable palettes available, which you can choose from the Window menu.

Workspace Option

Choose between preset workspace arrangements, including 3D workspaces, zoom and Share for Commenting.


Mon 29 Nov 10:45:03
Adobe Photoshop 202
Properties
Curves
Preset: Default
RGB
Auto
Input:
Output:
Swatches
Color
K
100 %
Adjustments
Add an adjustment
Layers
Paths
Channels
Styles
Kind
Normal
Opacity: 100%
Lock:
Fill: 100%
Curves 1
Col... 1
Background

Fly-out Palettes

You can set up your own custom list of frequently used palettes and access them by clicking on these buttons.

Layer Palette

Here you'll find the layers of the image you're currently working on. Layers at the top of the stack will appear above those below.

Layer Options

Here you can add effects, layer styles, adjustments and other options to your currently active layers.

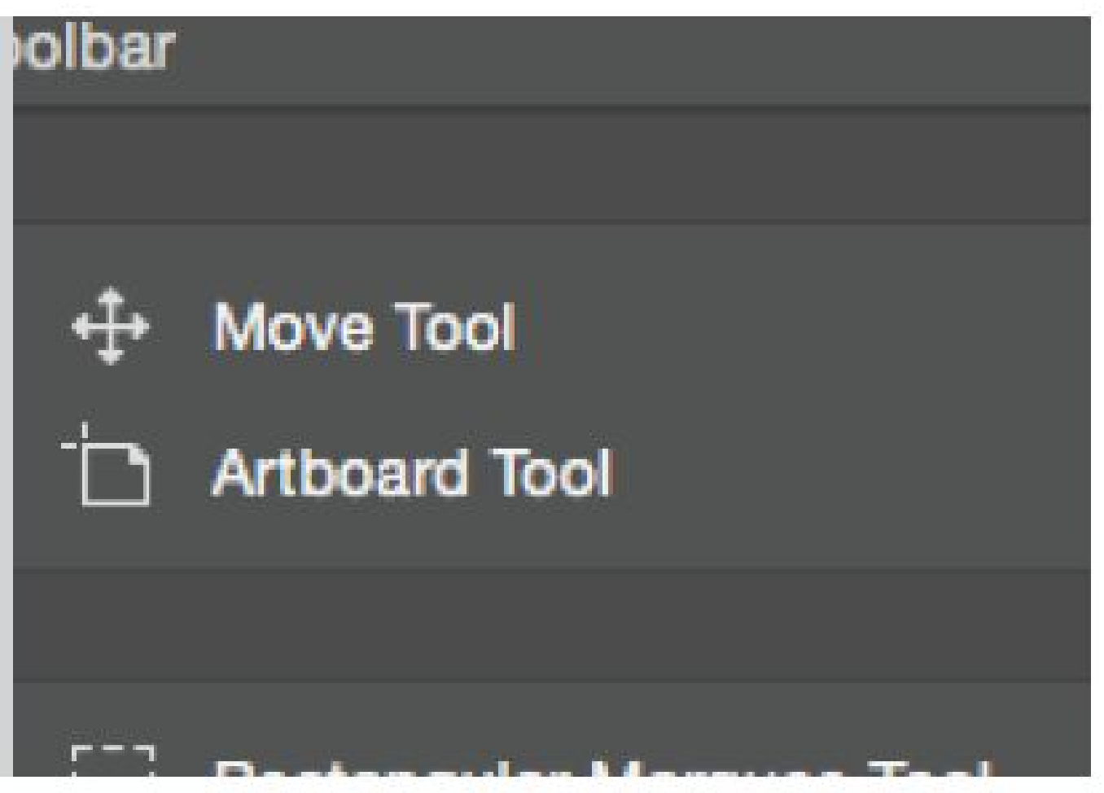
The Toolbar

Let's take a look at Photoshop's main editing tools

The main elements of the Photoshop Toolbar haven't changed all that much since the introduction of Layers and the Move Tool with version 3.0, back in 1994. The shape has changed a bit, elongating into a single column to take advantage of today's larger monitors and a few more tools have been added, but anyone who's familiar with any previous version of Photoshop will soon feel right at home.

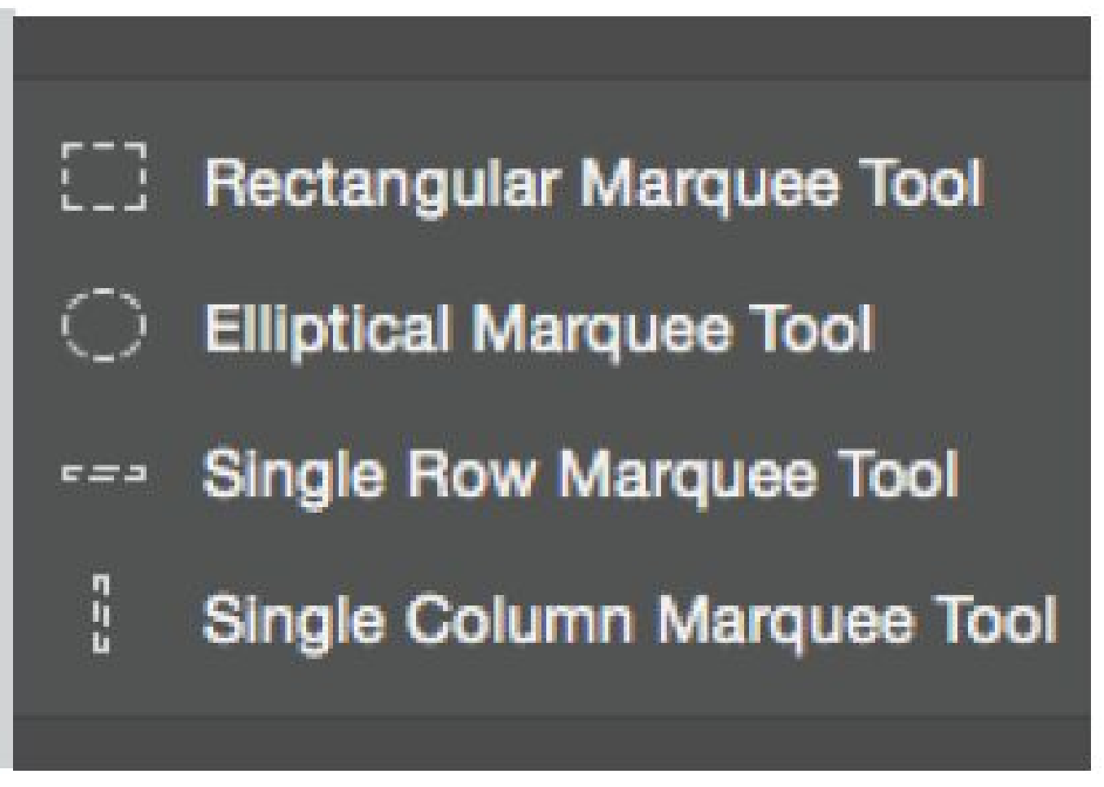
Move

Used to move pixel information on the active layer or selection. You can also create multiple layouts using the Artboard feature.


Move Tool
Artboard Tool

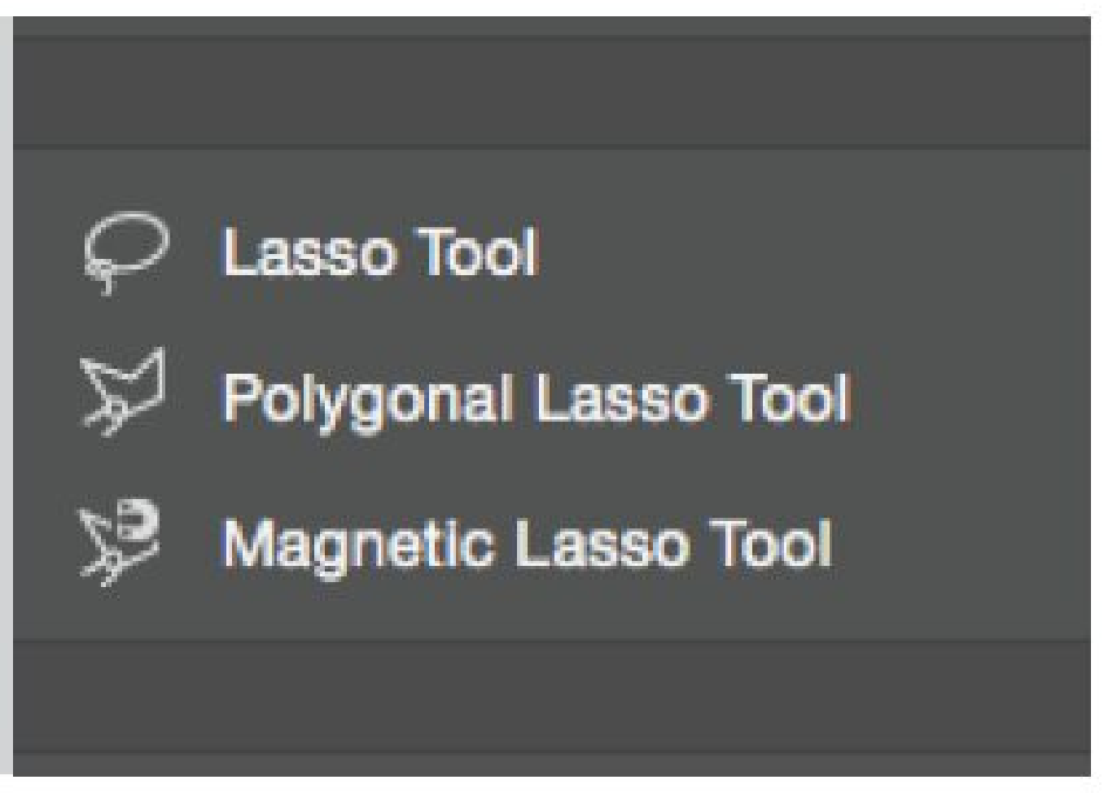
Marquee

The Marquee is used to select an area of the active layer. Alternative options include an elliptical shape and single row or column selections.


Rectangular Marquee Tool
Elliptical Marquee Tool
Single Row Marquee Tool
Single Column Marquee Tool

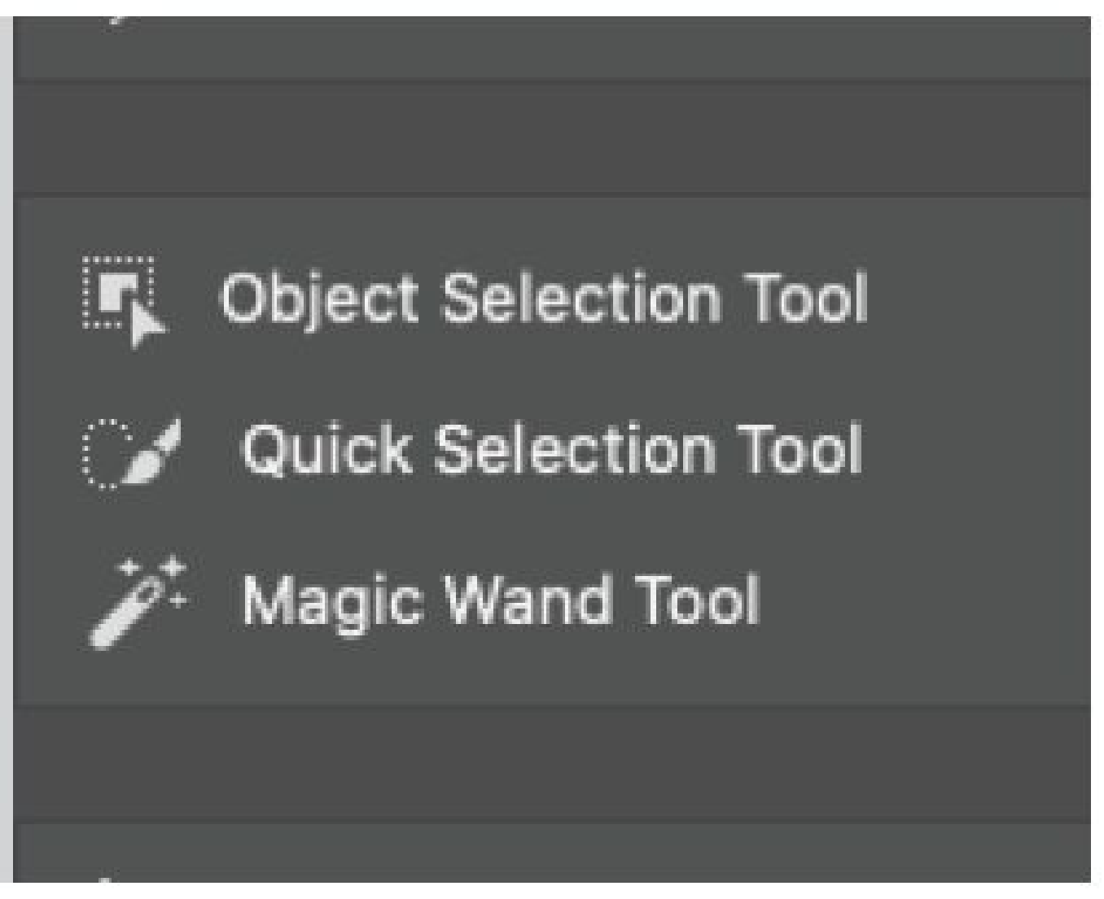
Lasso

The Lasso is also used to make area selections from the active layer by clicking or drawing a line around the area to be selected.


Lasso Tool
Polygonal Lasso Tool
Magnetic Lasso Tool

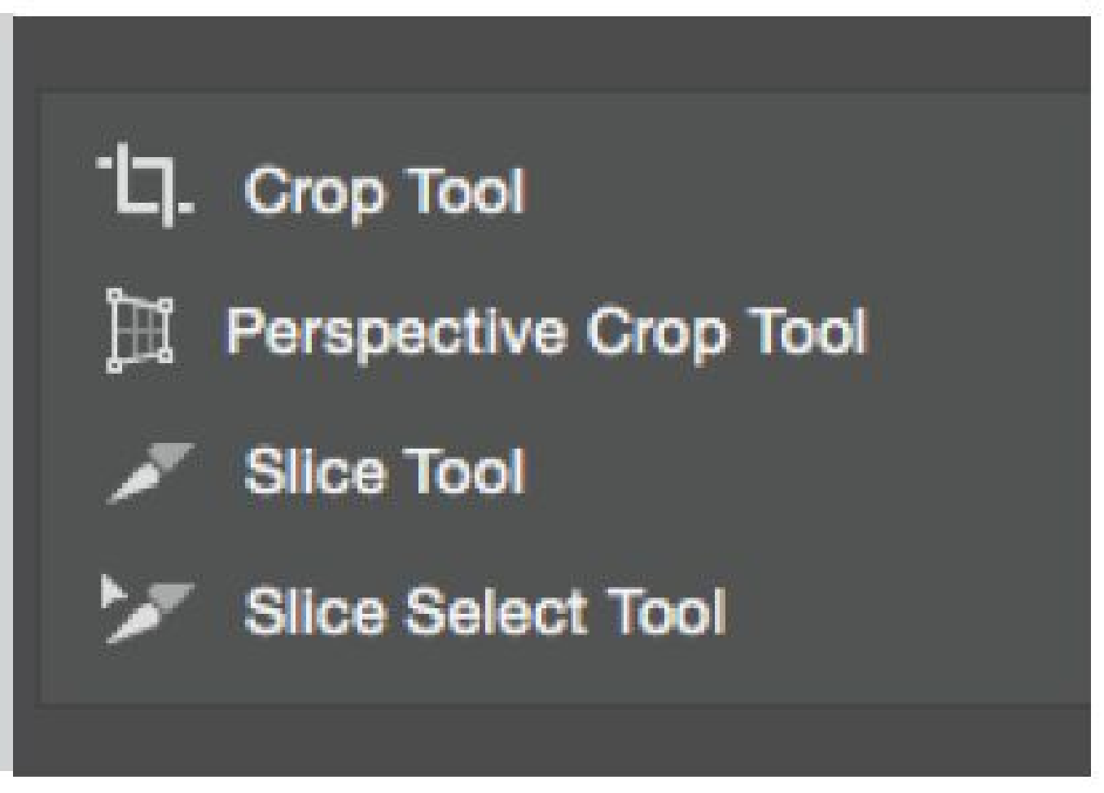
Magic Wand

This tool can select an area based on its colour. The alternative option is Quick Selection, or the newly updated Object Selection Tool that scans the image automatically.


Object Selection Tool
Quick Selection Tool
Magic Wand Tool

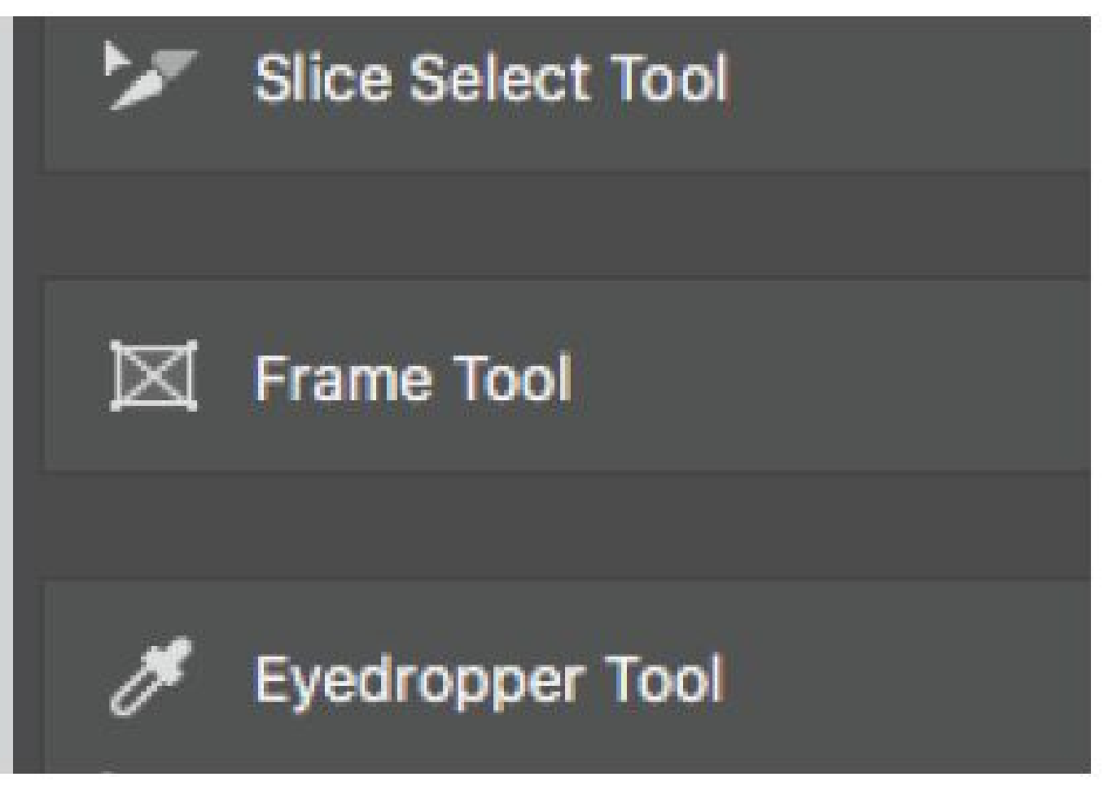
Crop

The Crop Tool has seen a major overhauls in the past, but it still does the same job. Use it to select one area of an image and discard the rest.


Crop Tool
Perspective Crop Tool
Slice Tool
Slice Select Tool

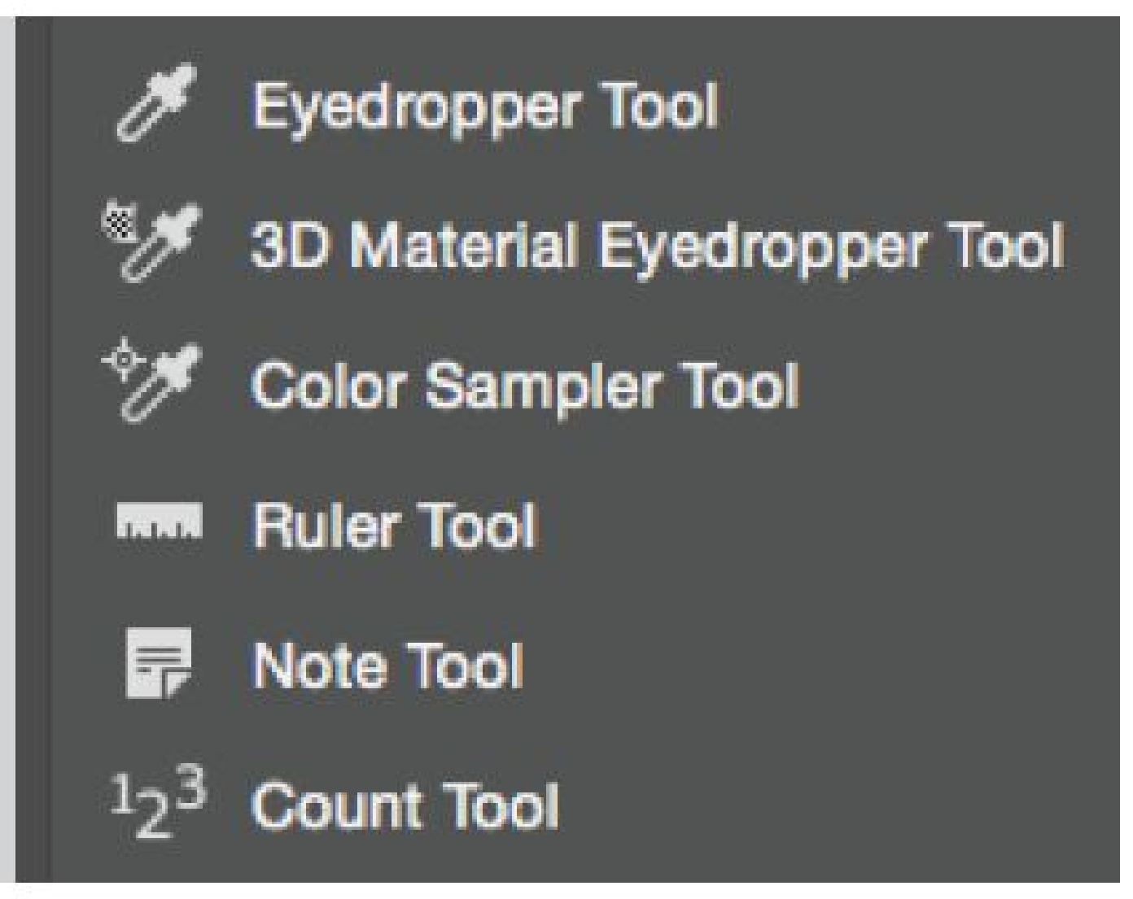
Frame Tool

The Frame Tool can be used to create placeholder frames for images. You can create any kind of shape and drop an image into it.


Slice Select Tool
Frame Tool
Eyedropper Tool

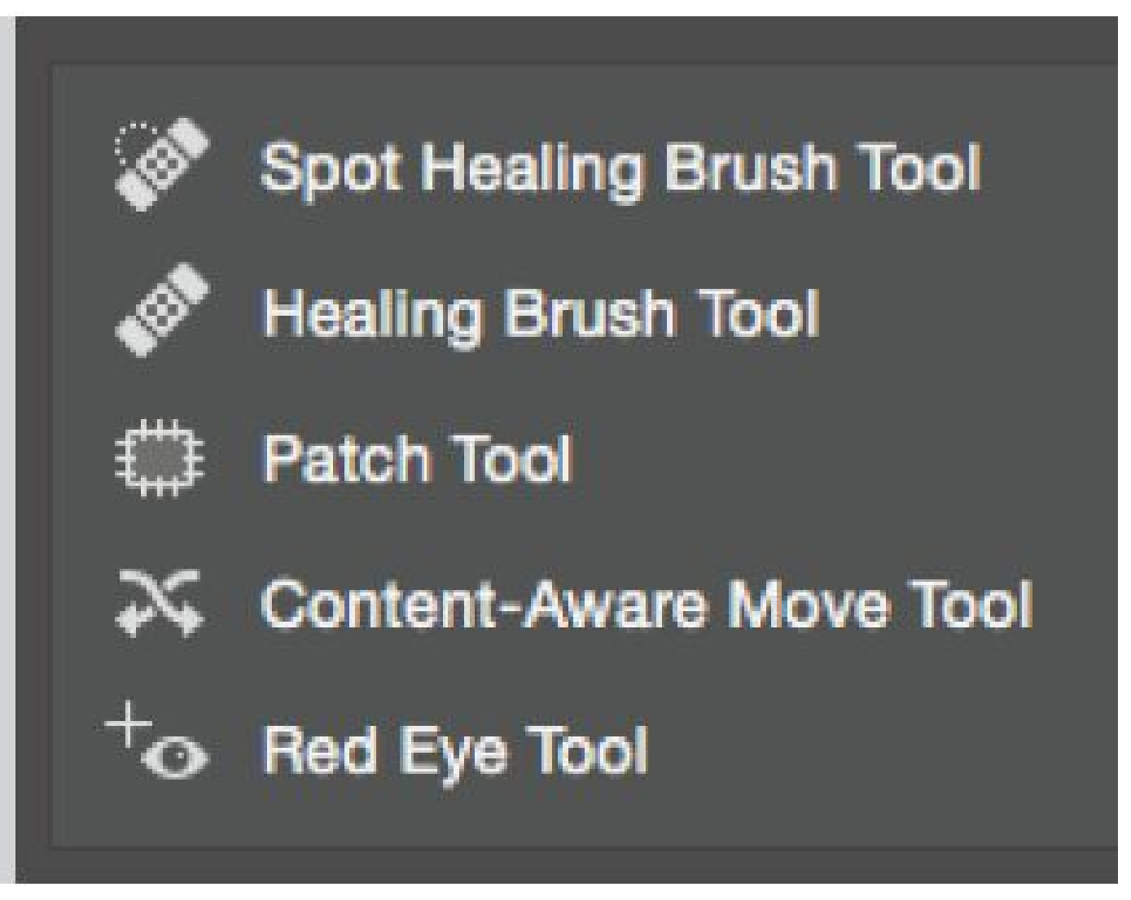
Eyedropper

The Eyedropper and its extensive list of alternatives provide you with tools that can tell you more about the image you're working on, such as colour values, sizes and object count.


Eyedropper Tool
3D Material Eyedropper Tool
Color Sampler Tool
Ruler Tool
Note Tool
Count Tool

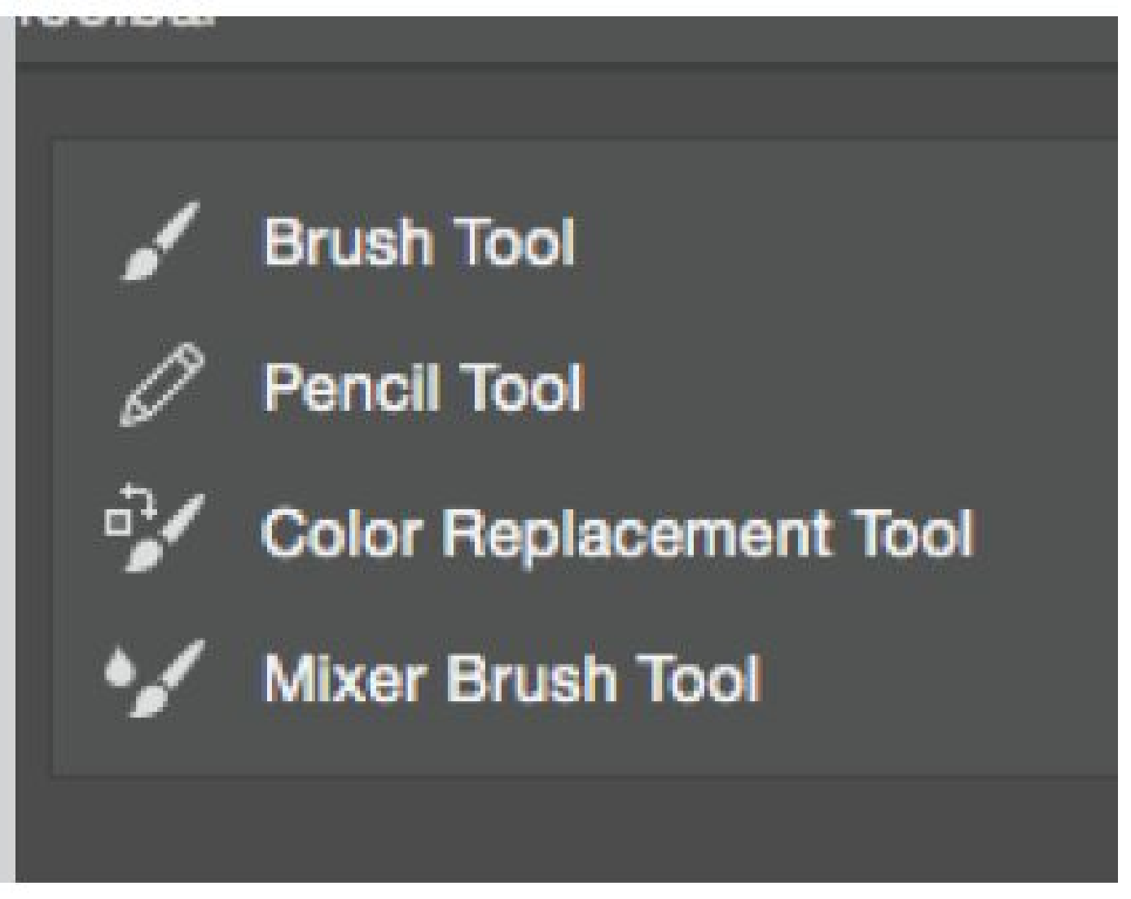
Spot Healing

Another tool that has seen some changes in the latest version, the Spot Healing Tool is for removing small blemishes such as stray hairs or dust spots from your images.


Spot Healing Brush Tool
Healing Brush Tool
Patch Tool
Content-Aware Move Tool
Red Eye Tool

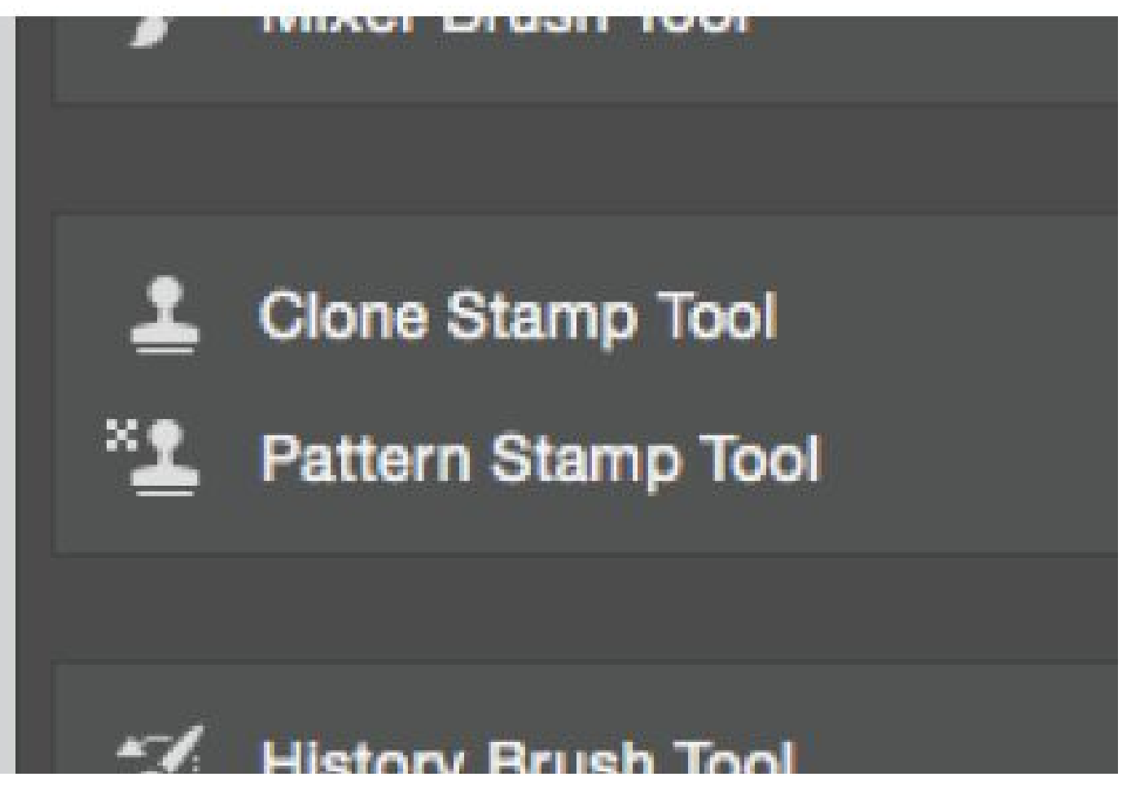
Brush

This is a basic but useful tool for all types of image editing, painting and drawing. Alternatives include the equally useful Pencil Tool, as well as colour replacement and mixing.


Brush Tool
Pencil Tool
Color Replacement Tool
Mixer Brush Tool

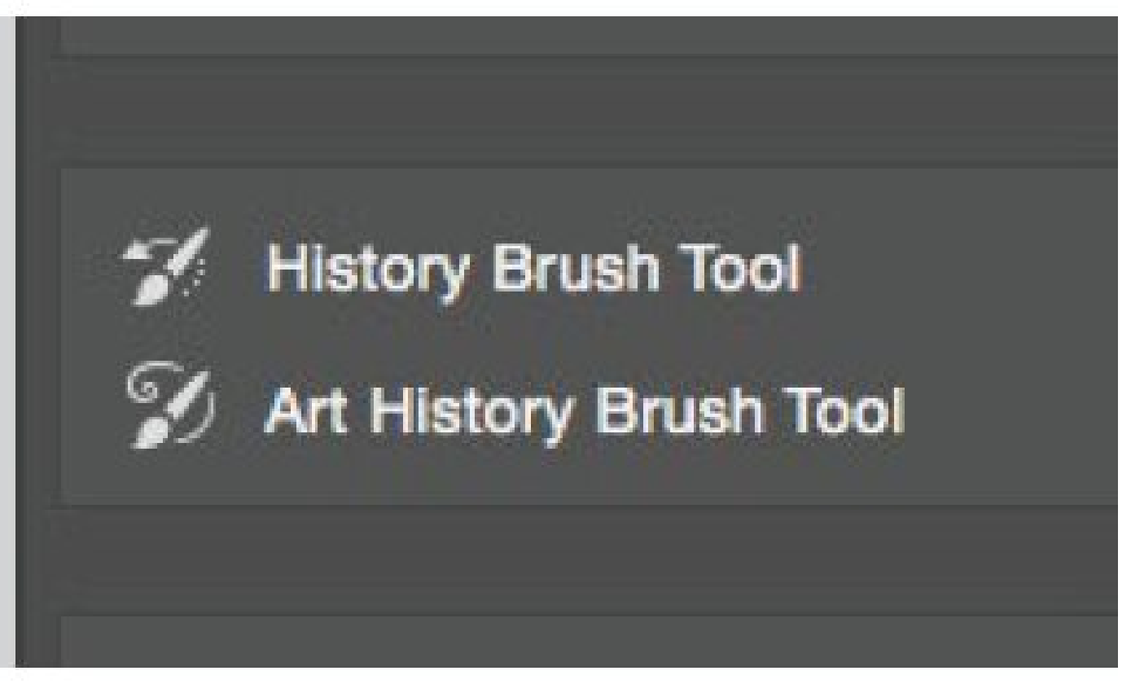
Clone Stamp

Clone Stamp is used to copy one area of an image onto another. It can remove any unwanted element in your image.


Clone Stamp Tool
Pattern Stamp Tool

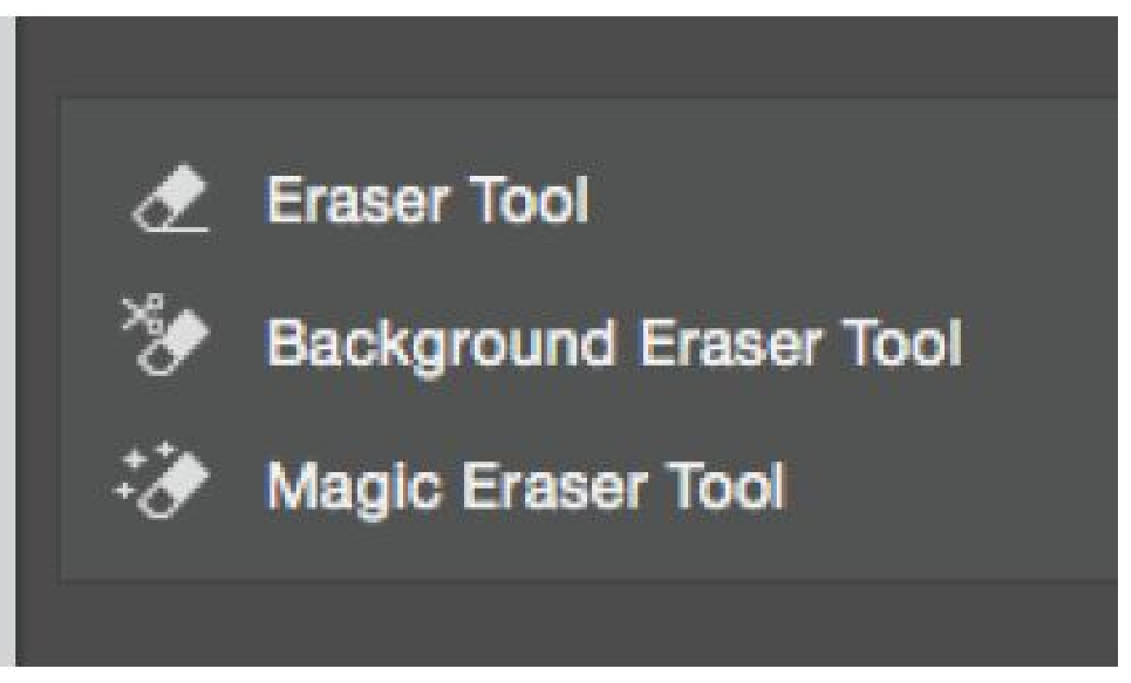
History Brush

The History Brush can be used to selectively restore certain areas of an image to a previous state.


History Brush Tool
Art History Brush Tool

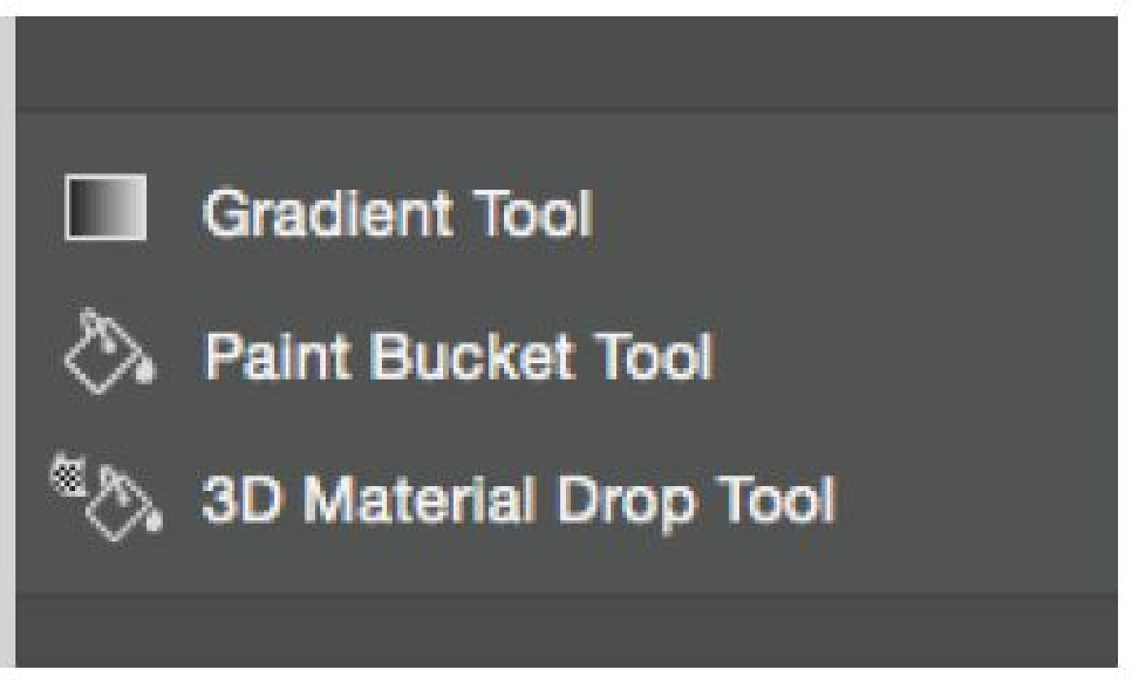
Eraser

As the name implies, the Eraser Tool is a special brush that can delete an area of an image, layer or selection.


Eraser Tool
Background Eraser Tool
Magic Eraser Tool

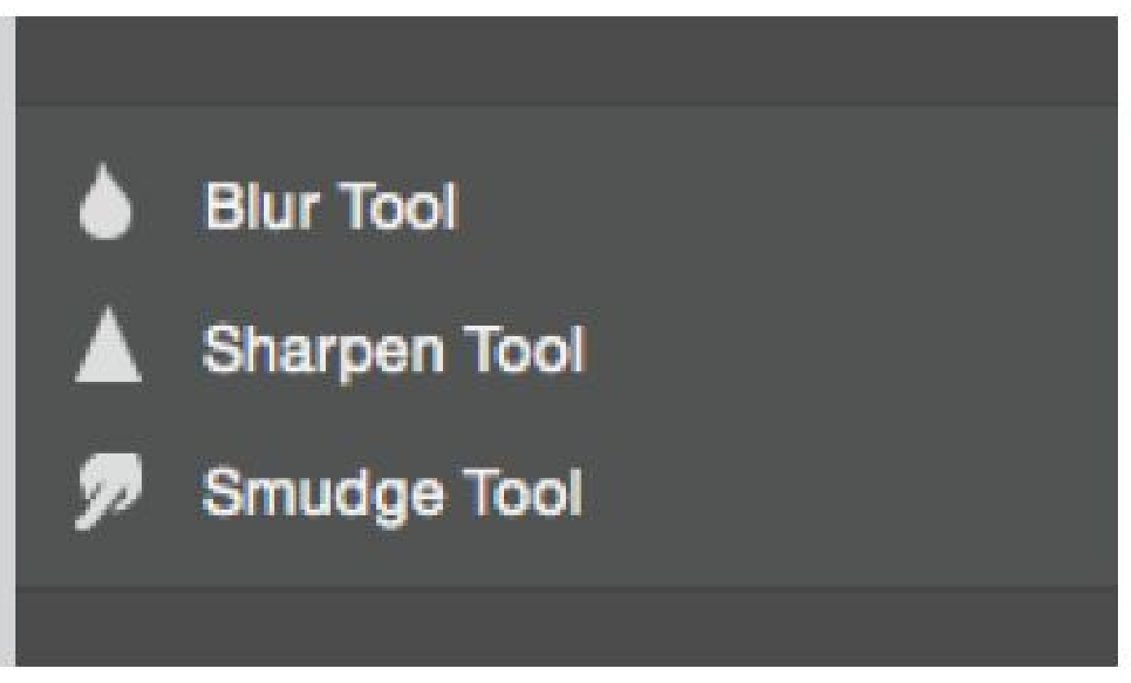
Gradient

The Gradient Tool can apply a fill-in to an area that fades gradually from one colour to another.


Gradient Tool
Paint Bucket Tool
3D Material Drop Tool

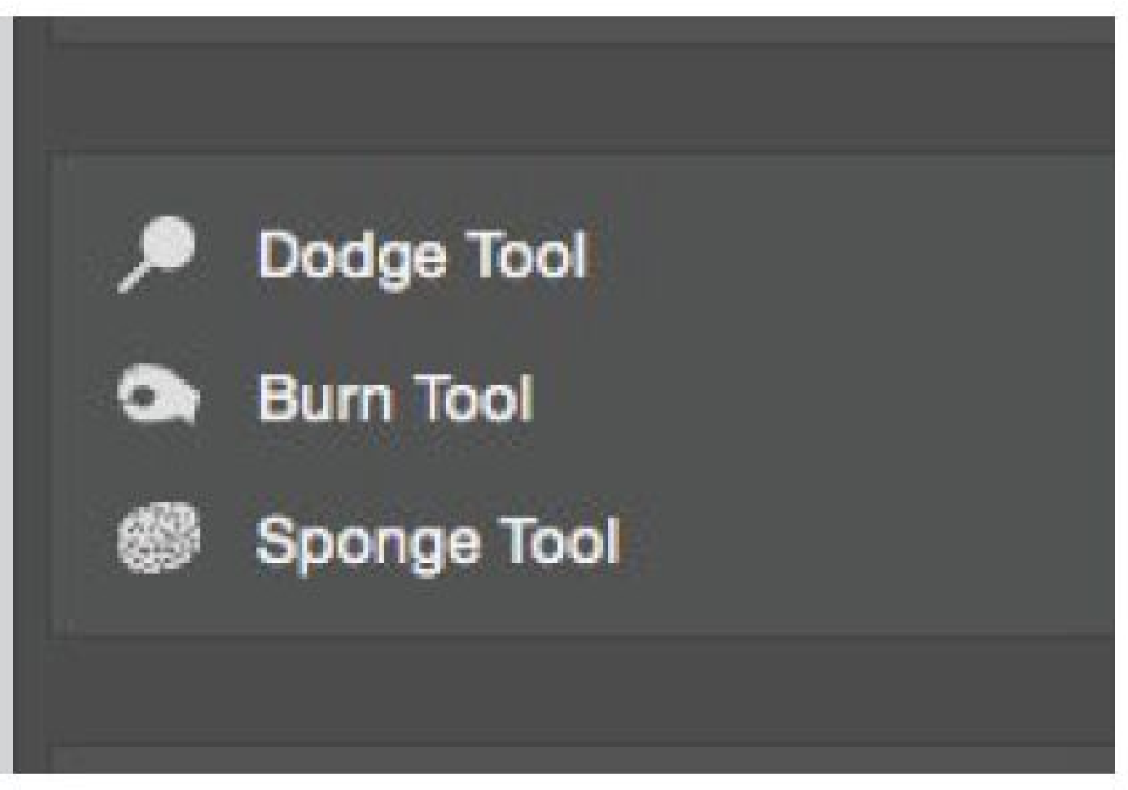
Smudge

The Smudge Tool and its options, can be used to blend and alter colours and details in the image.


Blur Tool
Sharpen Tool
Smudge Tool

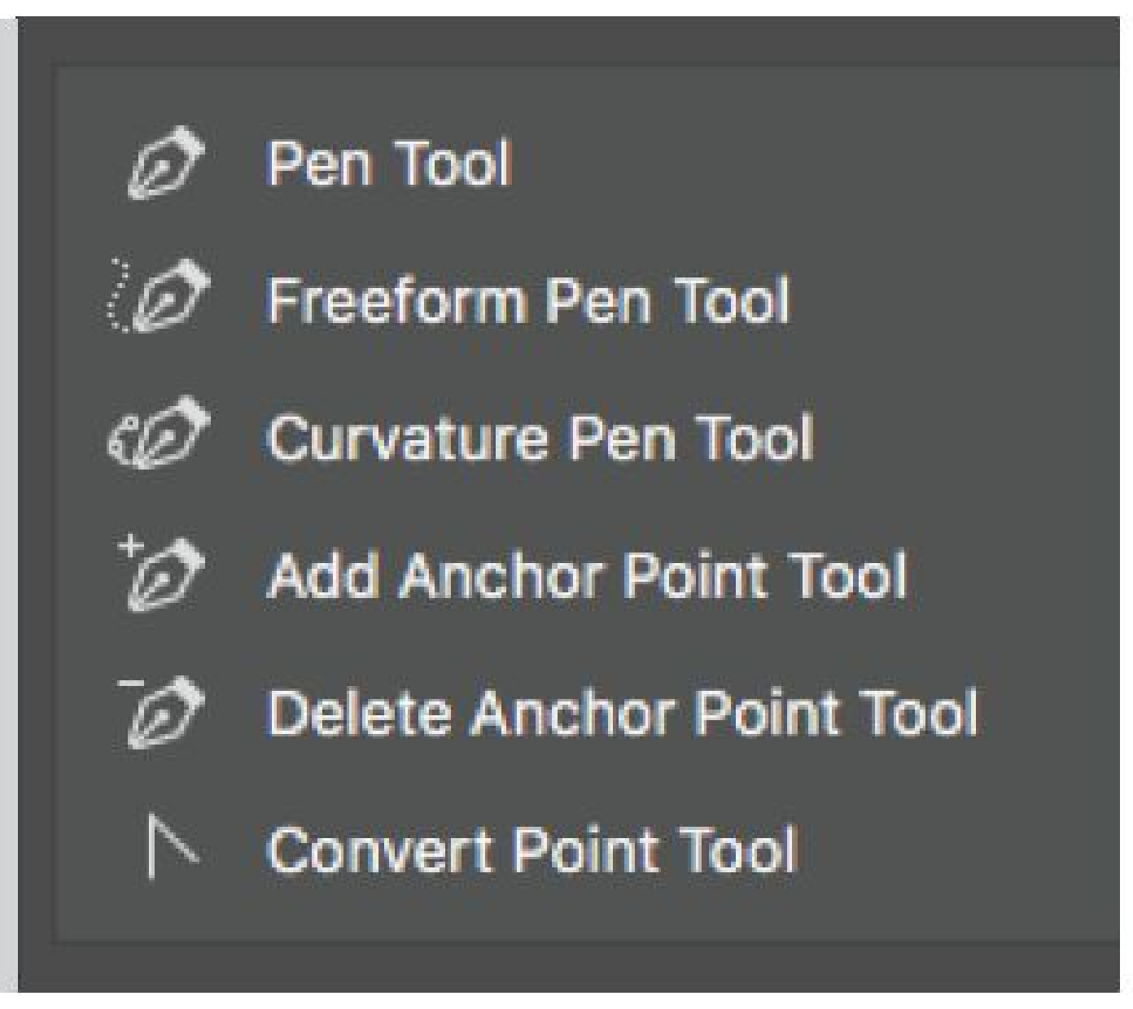
Burn

Burn and its alternatives Dodge and Sponge, are based on photographic darkroom techniques and are used to selectively lighten, darken images.


Dodge Tool
Burn Tool
Sponge Tool

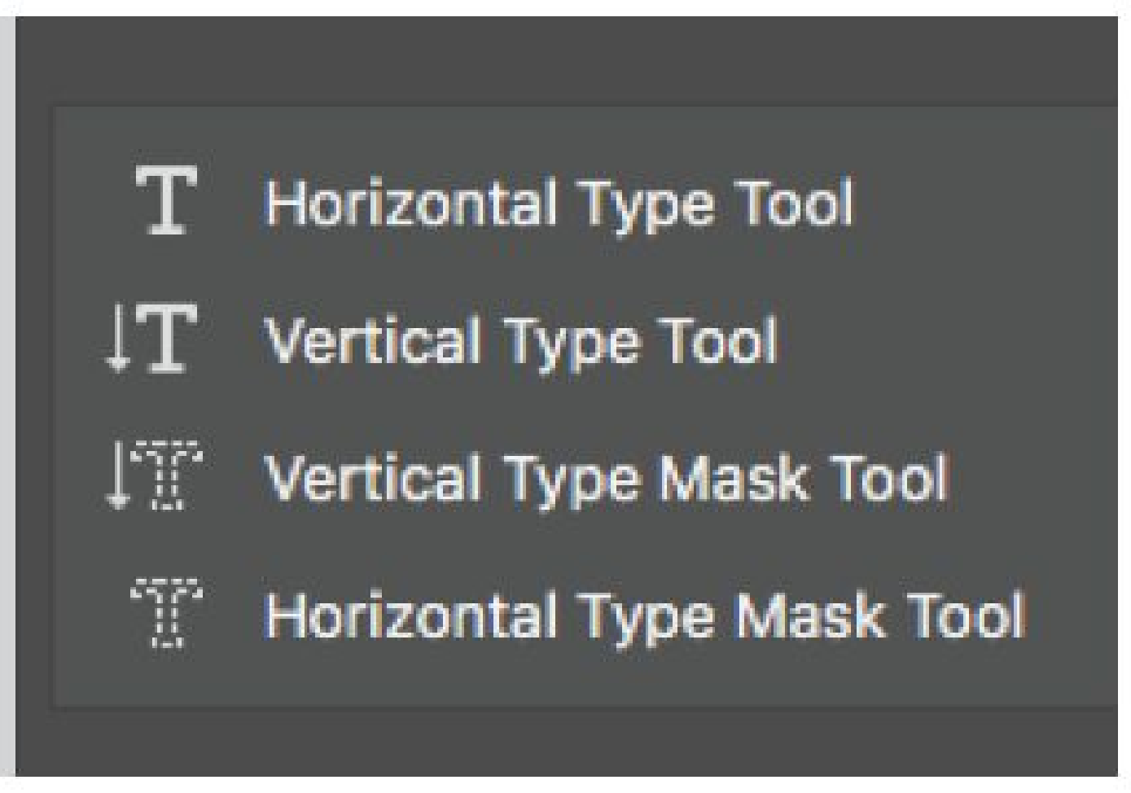
Pen

The Pen Tool is used to draw smooth curves for lines or selections, using something called Bezier curves. They can produce great results.


Pen Tool
Freeform Pen Tool
Curvature Pen Tool
Add Anchor Point Tool
Delete Anchor Point Tool
Convert Point Tool

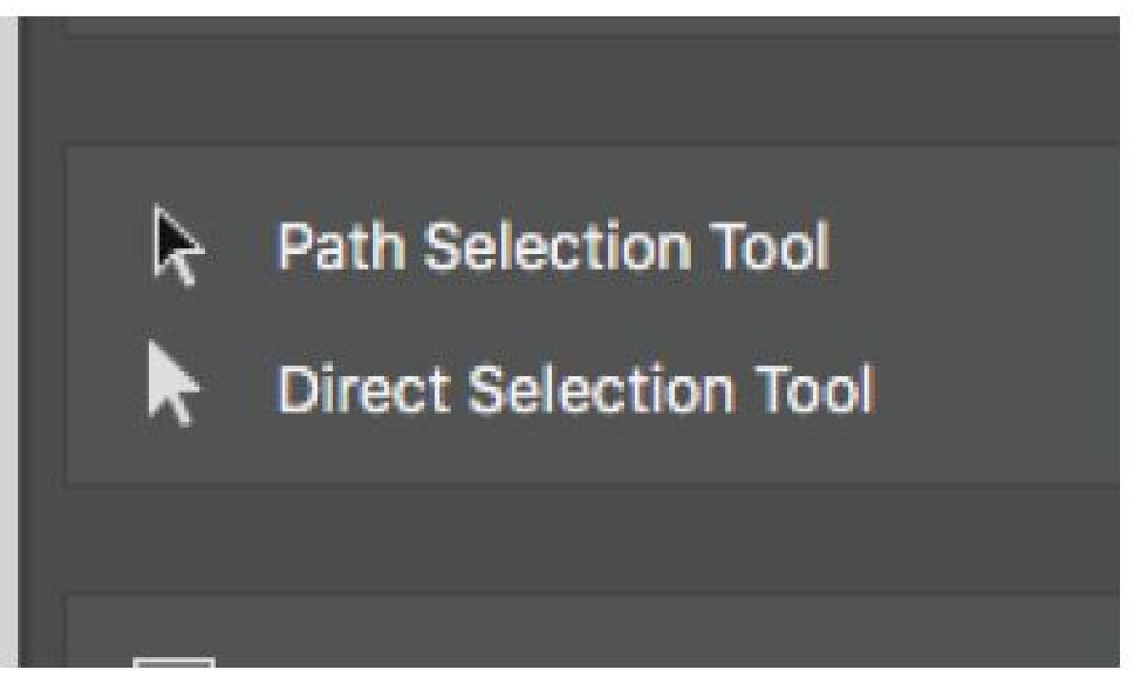
Type

The Type Tool is another area that has continued to receive various updates and overhauls and is now part of a powerful text system.


Horizontal Type Tool
Vertical Type Tool
Vertical Type Mask Tool
Horizontal Type Mask Tool

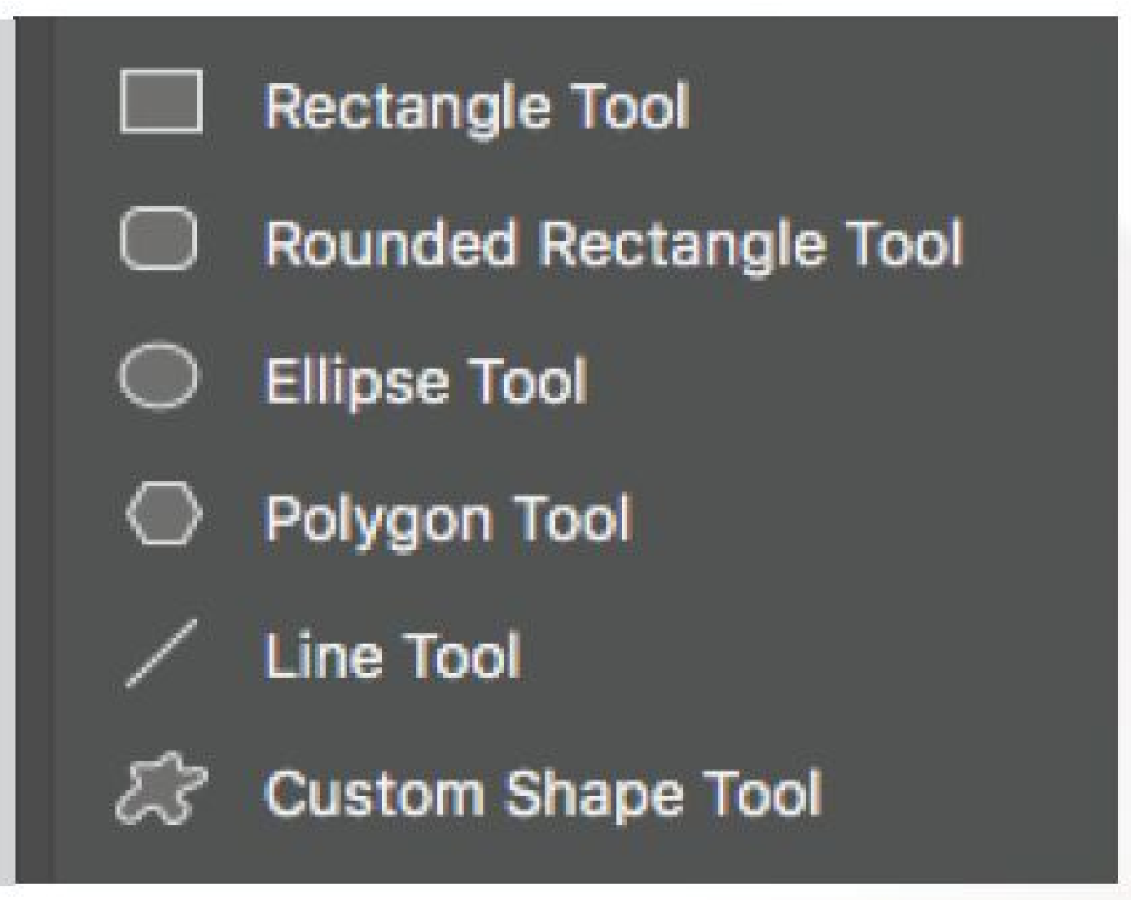
Path Selection

Paths are used for many purposes in Photoshop. Use this tool and its alternative to select a path to use.


Path Selection Tool
Direct Selection Tool

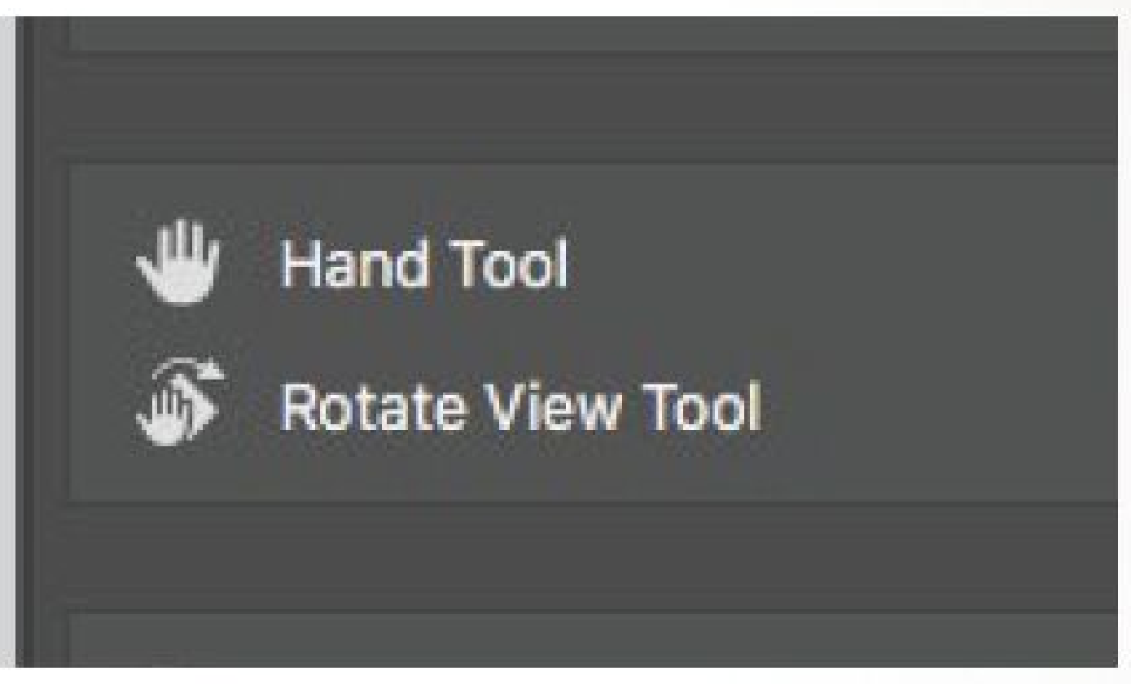
Line

The Line Tool and its alternatives are used to create shapes and paths on your images. It is very useful for graphics work and adding arrows and custom shapes.


Rectangle Tool
Rounded Rectangle Tool
Ellipse Tool
Polygon Tool
Line Tool
Custom Shape Tool

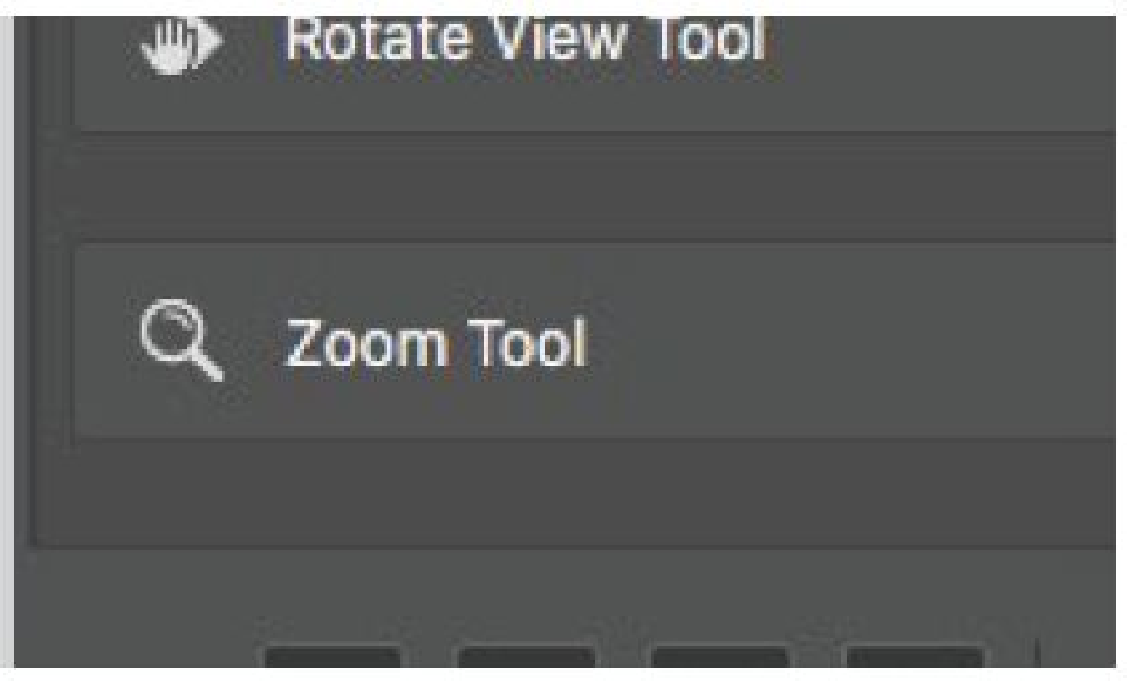
Hand

The Hand Tool is used to navigate around a large image. It is most often used via the space bar.


Hand Tool
Rotate View Tool

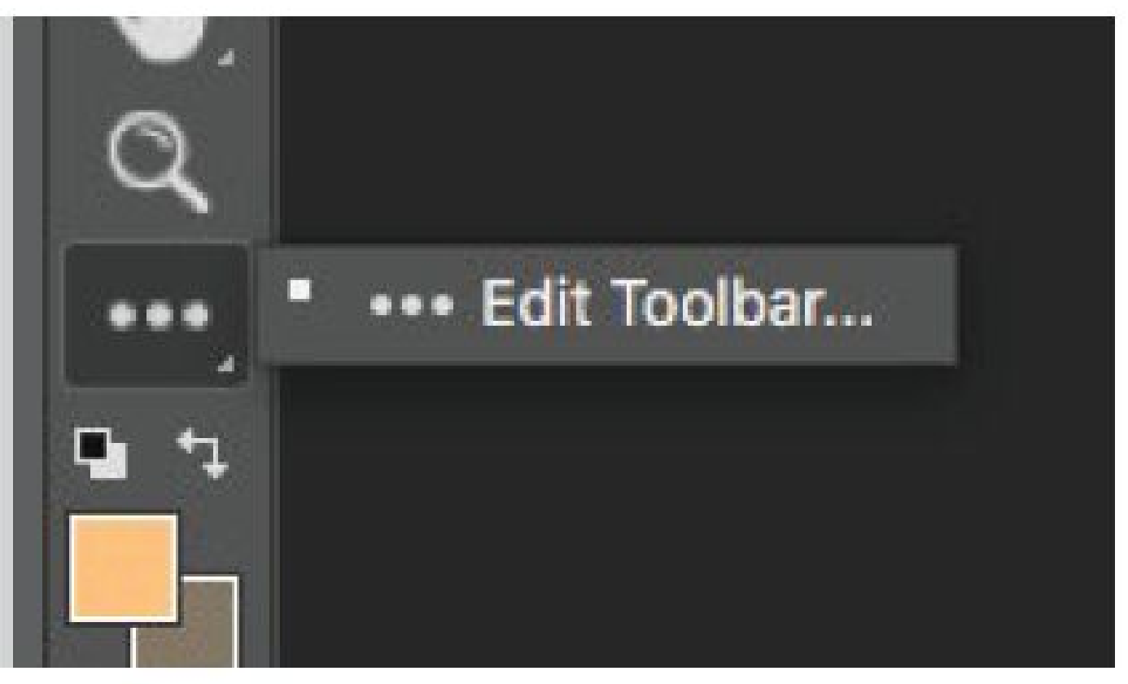
Zoom

This zooms in to an area of the image. Again it is most often used via a shortcut, in this case CTRL + or CTRL -.


Rotate View Tool
Zoom Tool

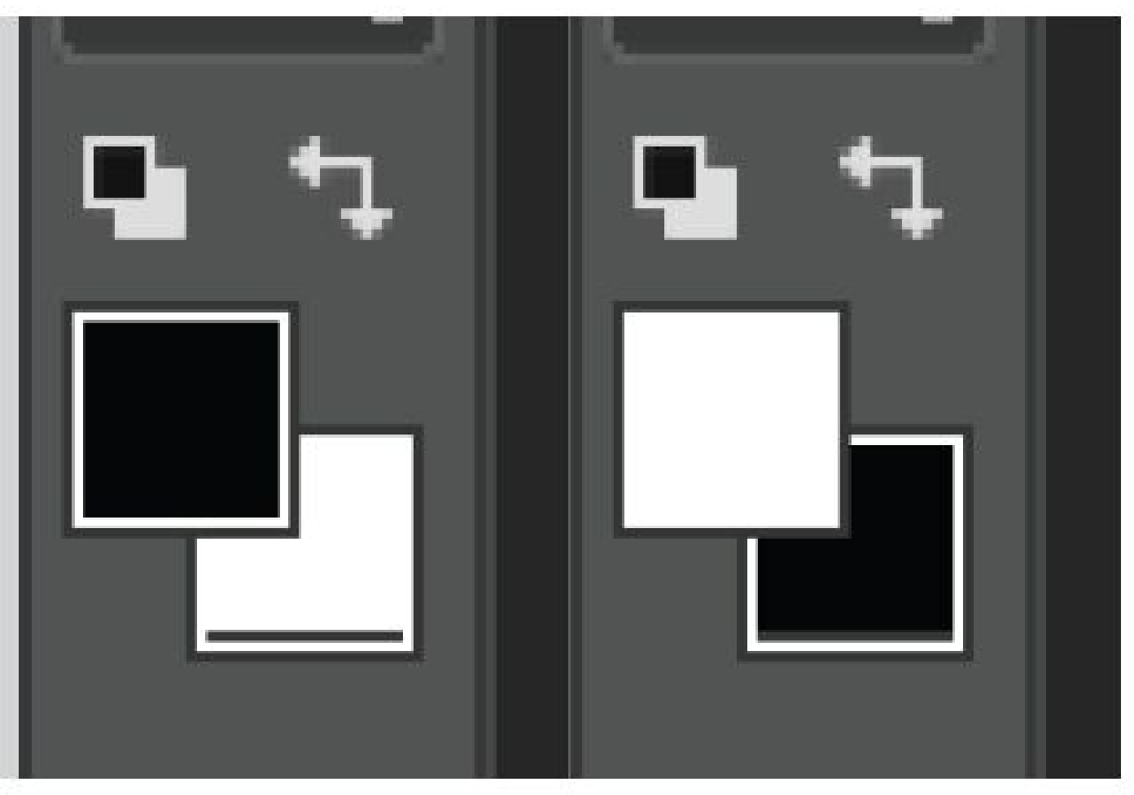
Edit Toolbar

This tool enables you to customise your toolbar to add or remove tools to your specific requirements.


Edit Toolbar...

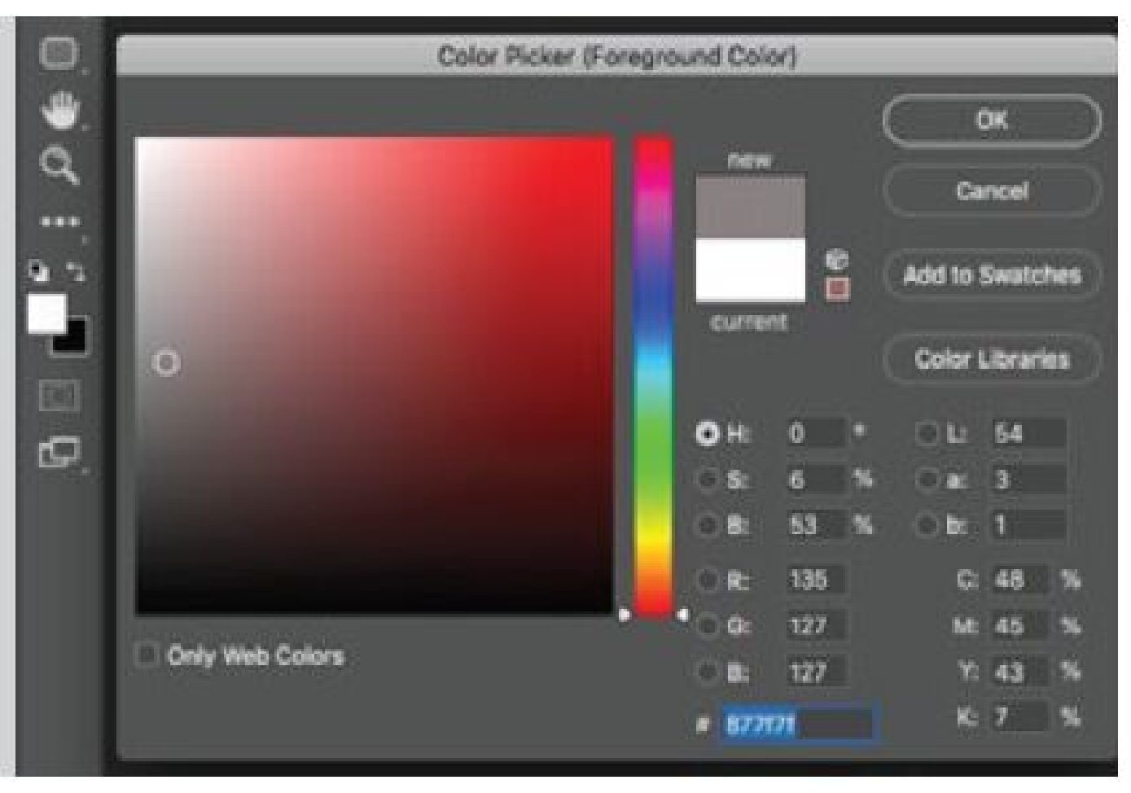
Switch Colour

Clicking on the first icon sets the colours to their defaults. The other swaps the background and foreground colours over.



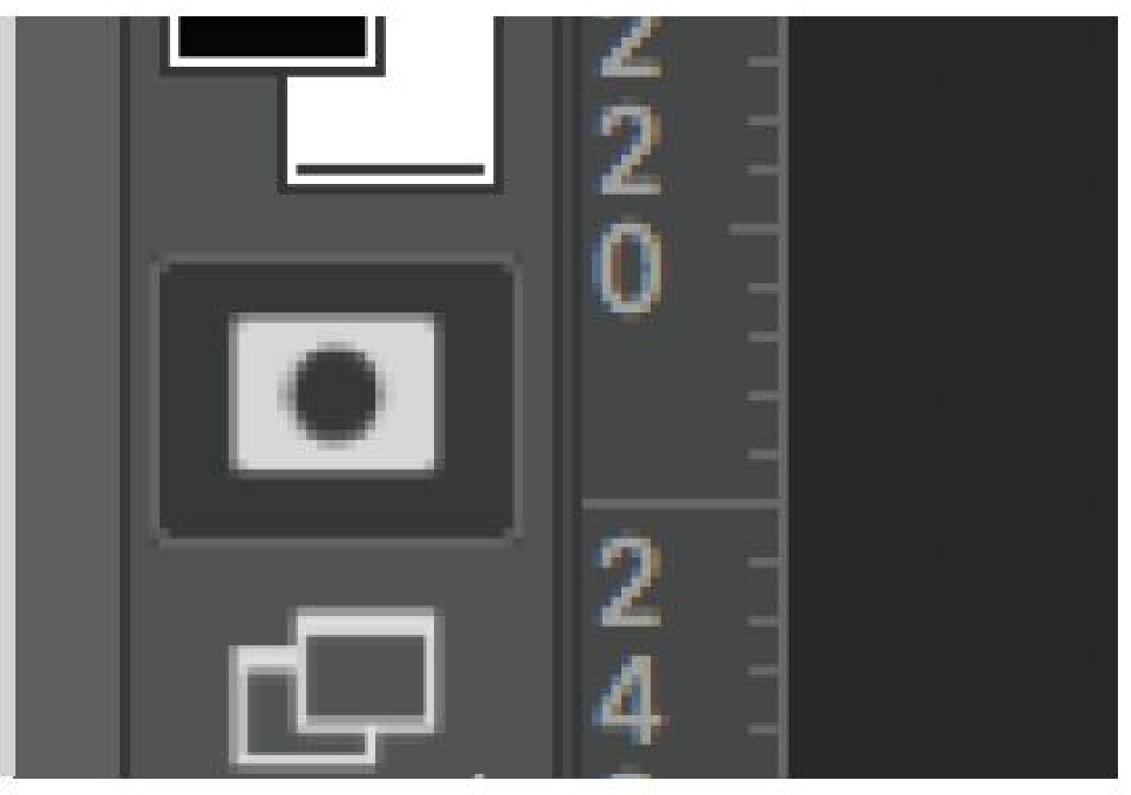
Set Colour

Clicking here brings up the colour chooser palette, which lets you choose the foreground or background colours.


Color Picker (Foreground Color)
OK
Cancel
Add to Swatches
Color Libraries
new
current
Only Web Colors

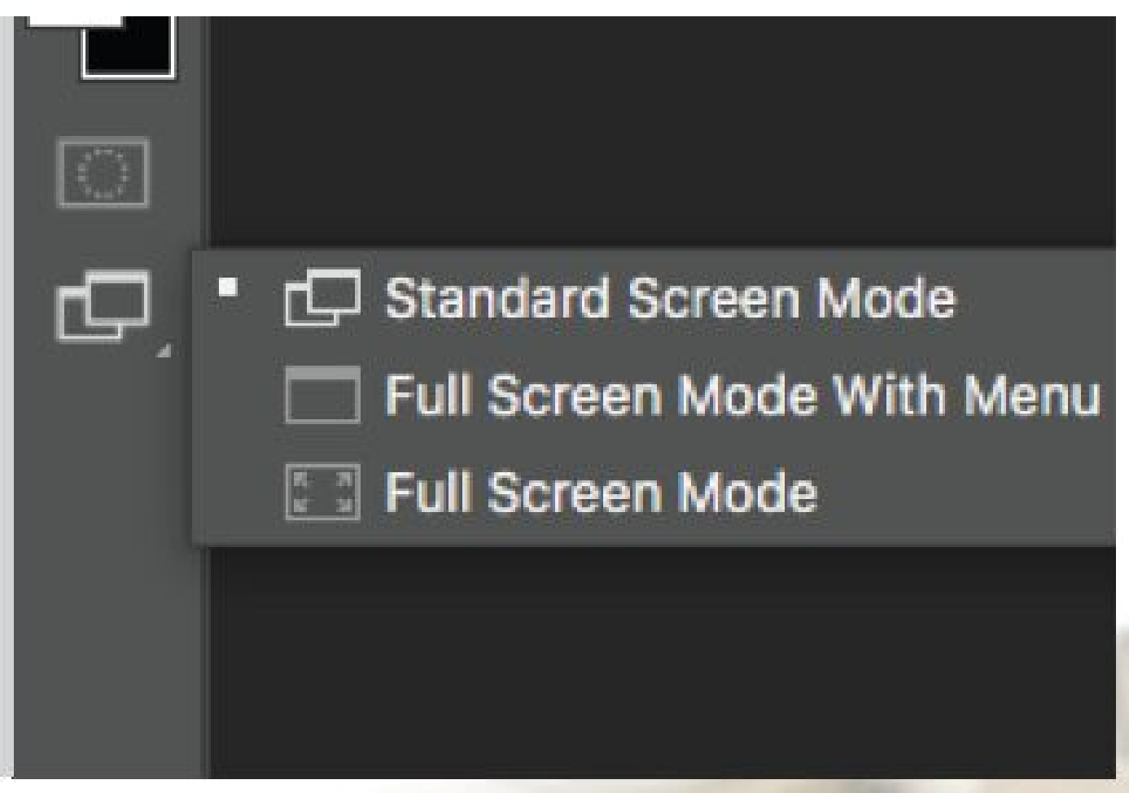
Quick Mask

The Quick Mask mode is a great way of making complex selections using the drawing and painting tools.



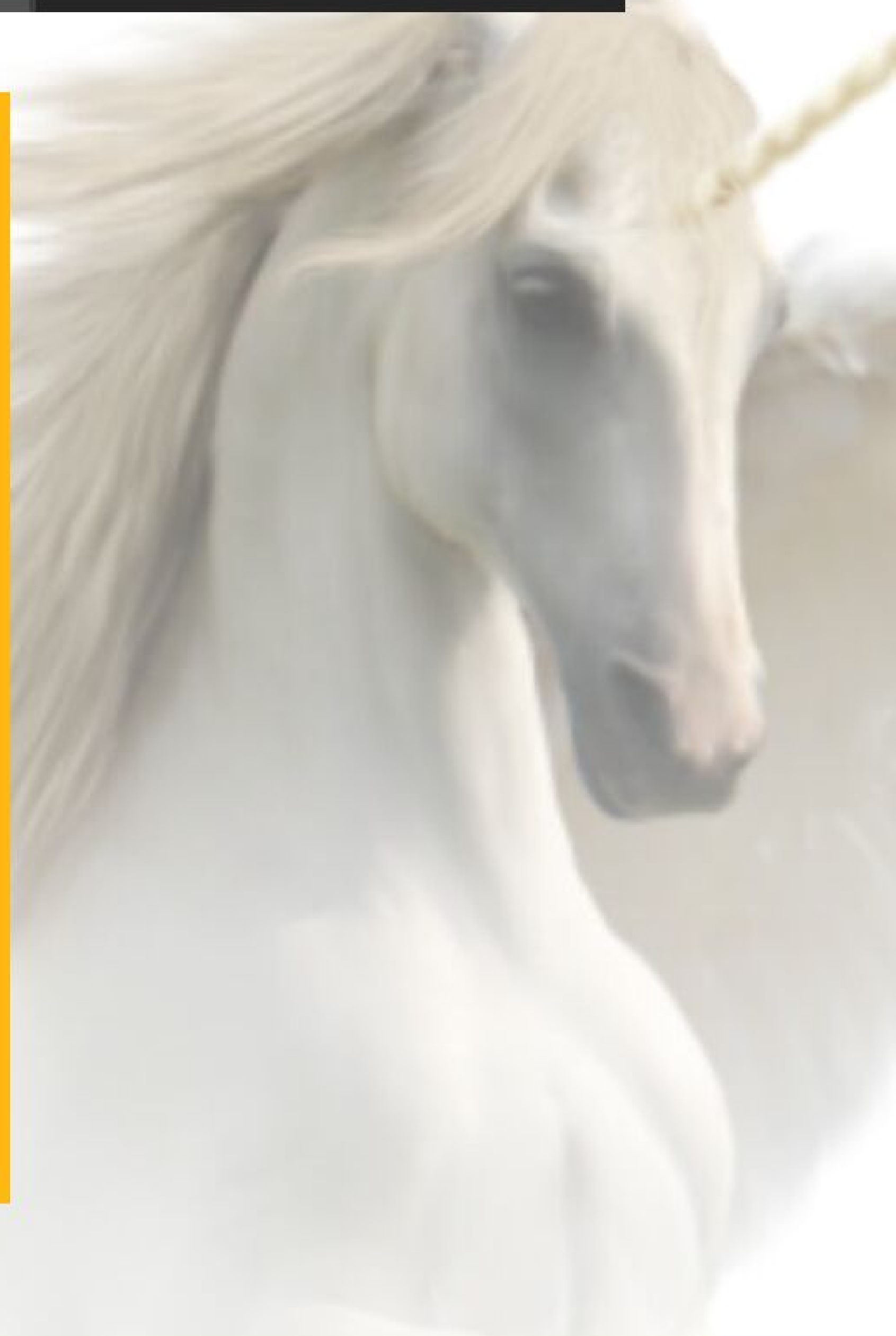
Screen Mode

Click here to switch between the current screen mode and a full-screen view of your current image.


Standard Screen Mode
Full Screen Mode With Menu
Full Screen Mode

USEFUL TIP

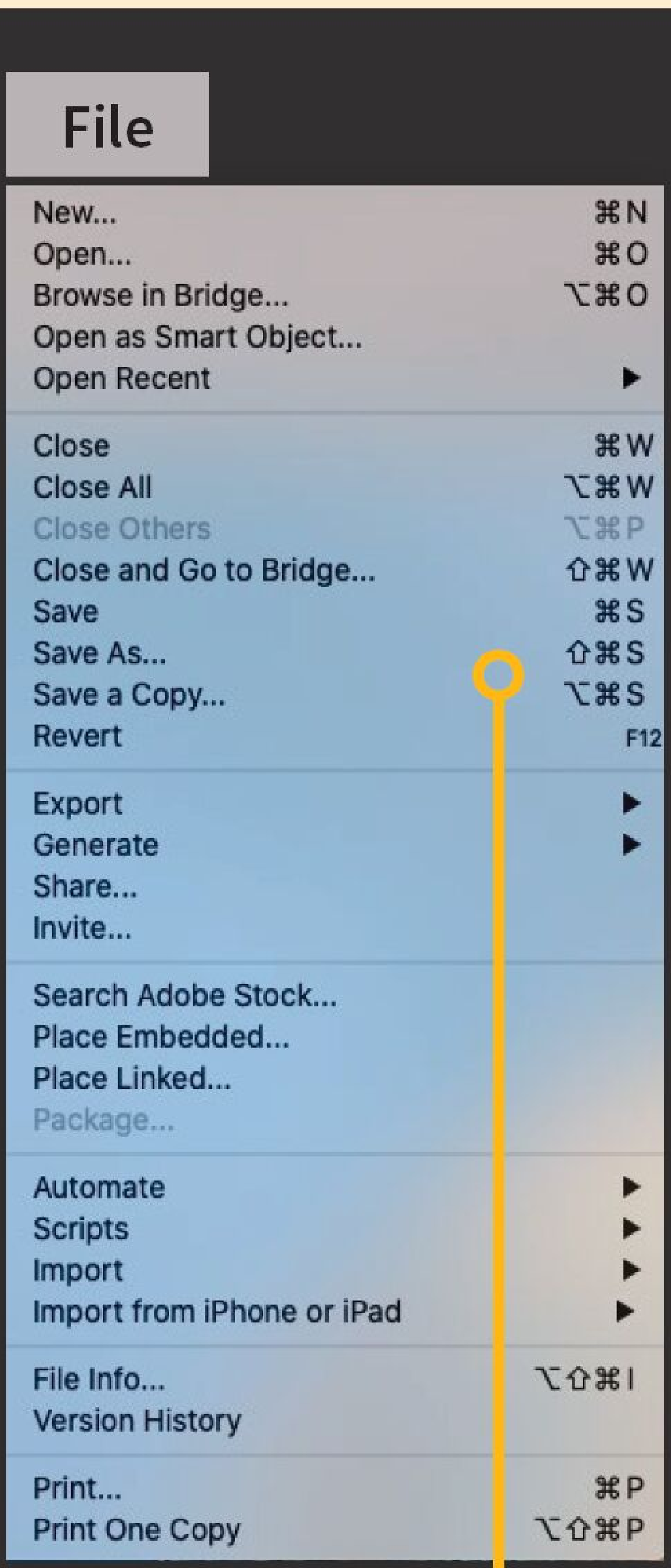
Most of the tools in the toolbar have alternative options, denoted by the small arrow below and right of the icon. Click and hold on the icon to see the pop-up alternative menu. This diagram shows the alternative menus for each tool. You can move the toolbar around by dragging the border at the top, or switch back to the old two-column look by clicking the double arrow.



Menus

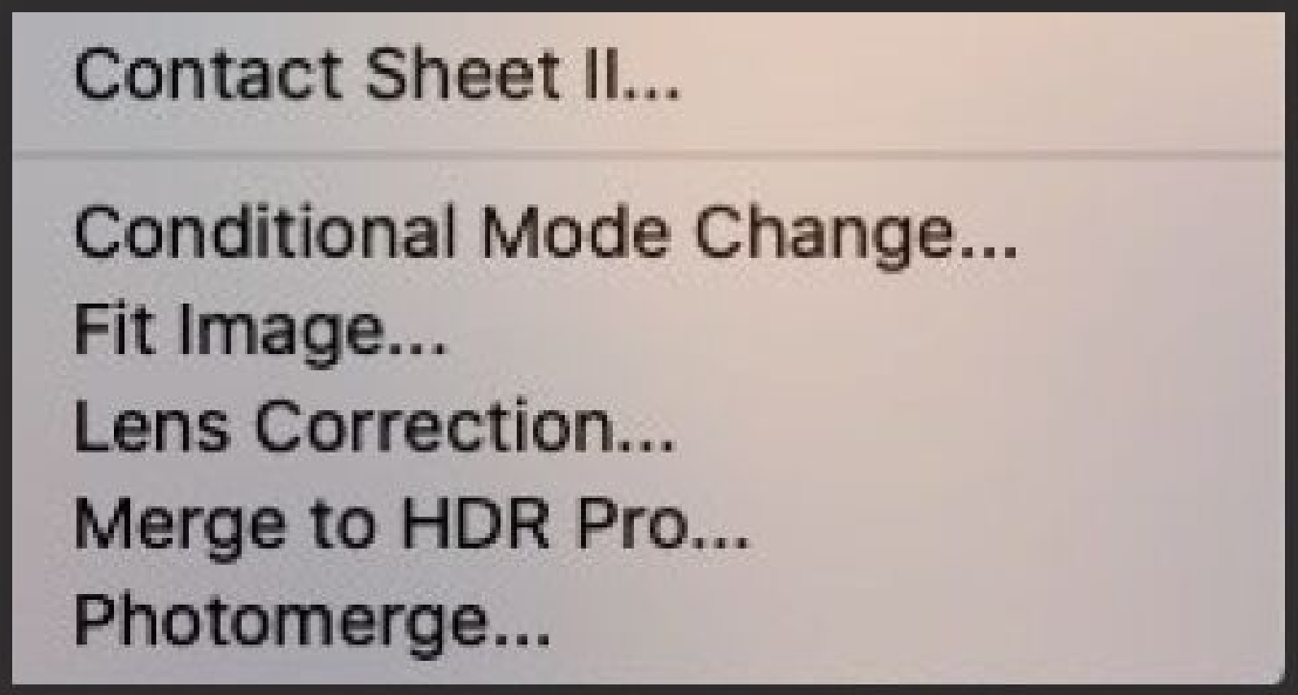
One look at the menus and you begin to understand Photoshop's complexity and versatility

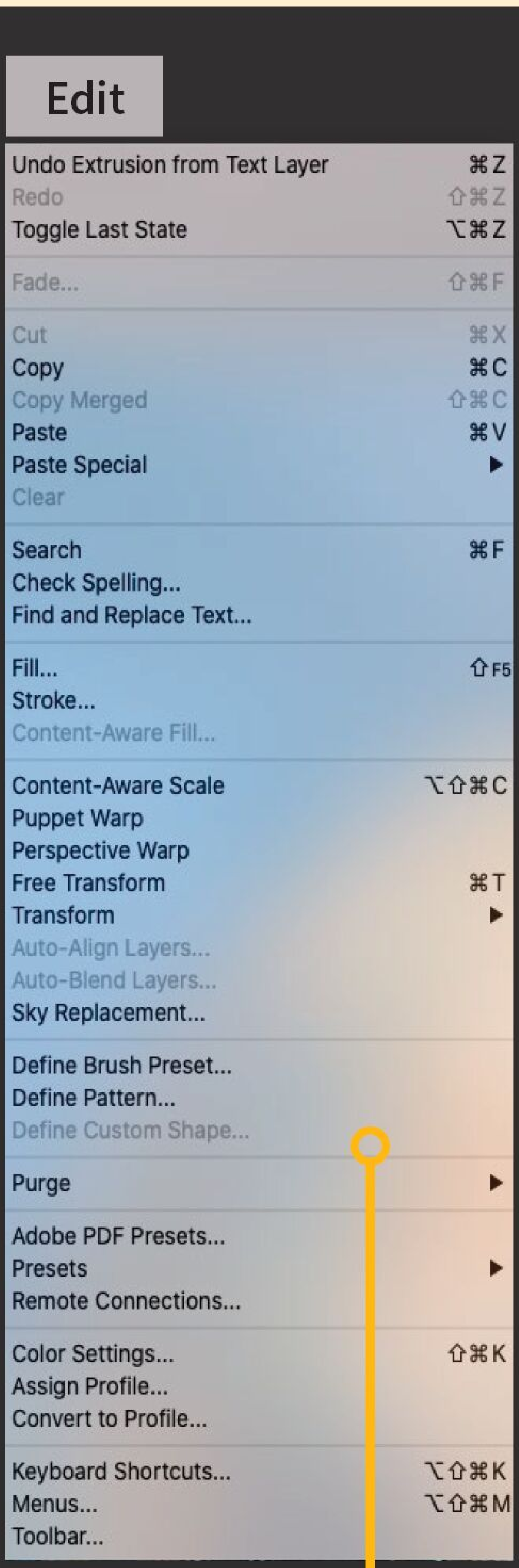
The main interface of Photoshop has no fewer than twelve menus and a Help option, each with many options and with many additional nested sub-menus. It's vital to become familiar with the contents of the most important ones, because once you know where to look for everything you'll be able to work more quickly, efficiently and confidently. Let's take a look at some of the key menu listings.


File
New... ⌘N
Open... ⌘O
Browse in Bridge... ⌥⌘O
Open as Smart Object...
Open Recent ▶
Close ⌘W
Close All ⌥⌘W
Close Others ⌥⌘P
Close and Go to Bridge... ⇧⌘W
Save ⌘S
Save As... ⇧⌘S
Save a Copy... ⌥⌘S
Revert F12
Export ▶
Generate ▶
Share...
Invite...
Search Adobe Stock...
Place Embedded...
Place Linked...
Package...
Automate ▶
Scripts ▶
Import ▶
Import from iPhone or iPad ▶
File Info... ⌥⇧⌘I
Version History
Print... ⌘P
Print One Copy ⌥⇧⌘P

File

The most important options here are New… to create a new document, Open… to open an existing document, Save to save your current project in its default file format and location and Save As… which gives you the option to save in a different format or location and to change the file name. Also in the File menu are the important Automate and Scripts sub-menus, which provide advanced batch processing and automated editing options.


Contact Sheet II...
Conditional Mode Change...
Fit Image...
Lens Correction...
Merge to HDR Pro...
Photomerge...


Edit
Undo Extrusion from Text Layer ⌘Z
Redo ⇧⌘Z
Toggle Last State ⌥⌘Z
Fade... ⇧⌘F
Cut ⌘X
Copy ⌘C
Copy Merged ⇧⌘C
Paste ⌘V
Paste Special ▶
Clear
Search ⌘F
Check Spelling...
Find and Replace Text...
Fill... ⇧F5
Stroke...
Content-Aware Fill...
Content-Aware Scale ⌥⇧⌘C
Puppet Warp
Perspective Warp
Free Transform ⌘T
Transform ▶
Auto-Align Layers...
Auto-Blend Layers...
Sky Replacement...
Define Brush Preset...
Define Pattern...
Define Custom Shape...
Purge ▶
Adobe PDF Presets...
Presets ▶
Remote Connections...
Color Settings... ⇧⌘K
Assign Profile...
Convert to Profile...
Keyboard Shortcuts... ⌥⇧⌘K
Menus... ⌥⇧⌘M
Toolbar...

Edit

The Edit menu has many features you'll find familiar if you use a word processor, including Copy, Paste and Cut functions and even a spelling checker, although you'll probably find it quicker to use the keyboard shortcuts for these. You'll also find the useful features Fill, Stroke, Content-aware Scale, Puppet Warp and Free Transform, as well as the colour profiles and Preferences sub-menu.

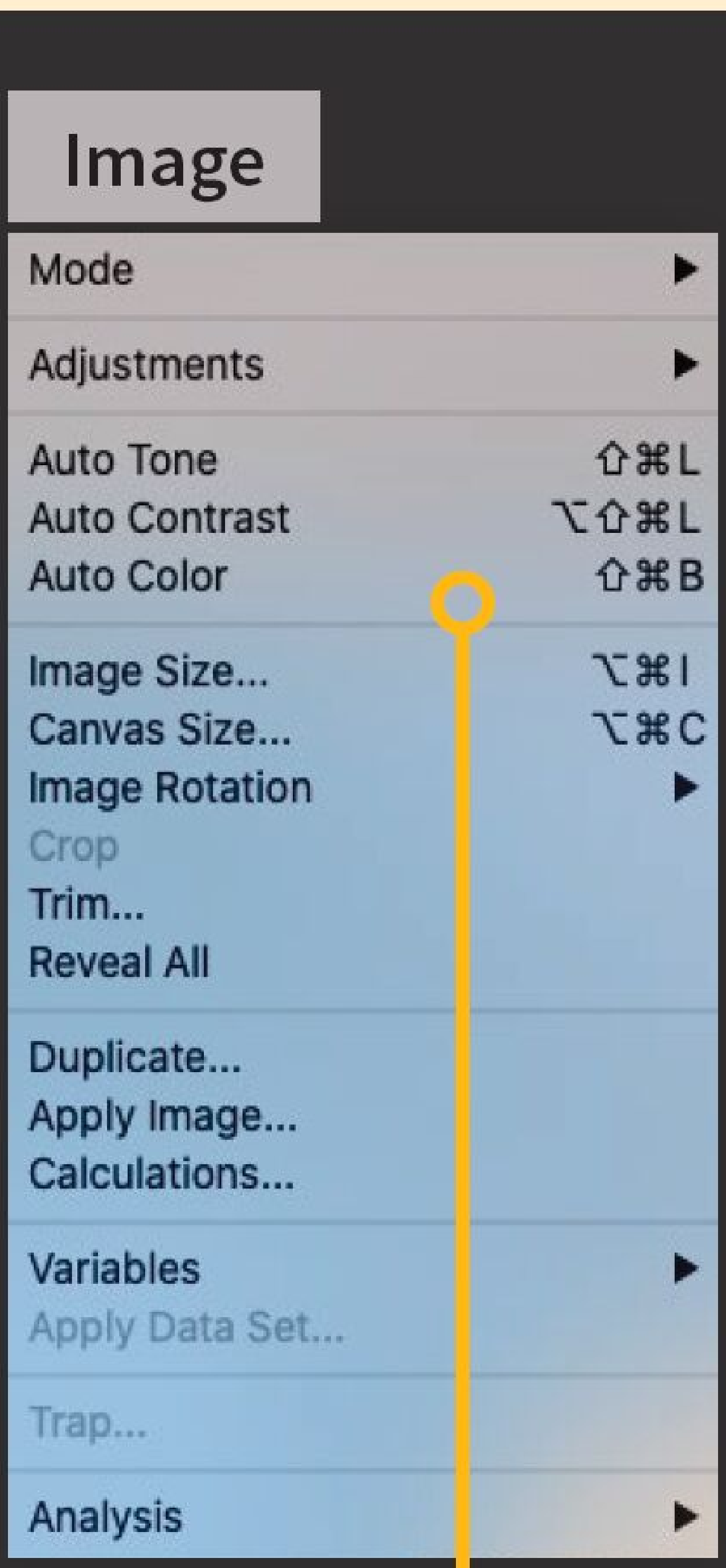
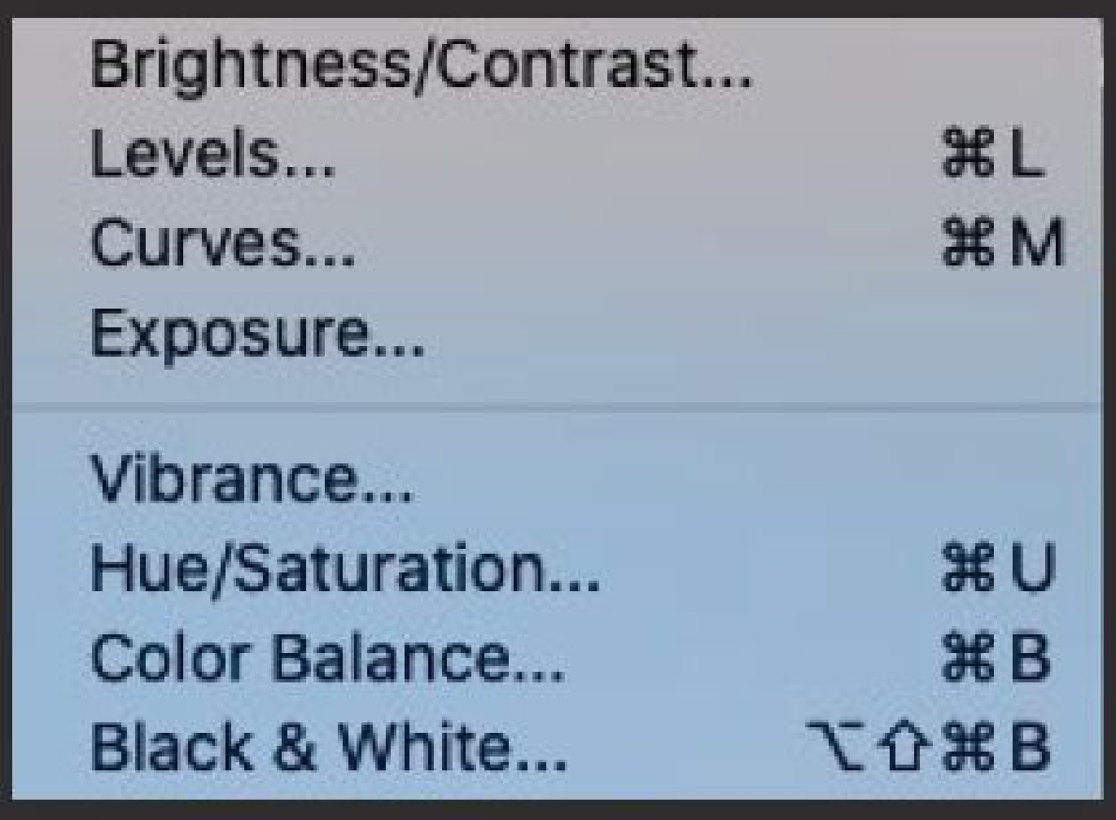
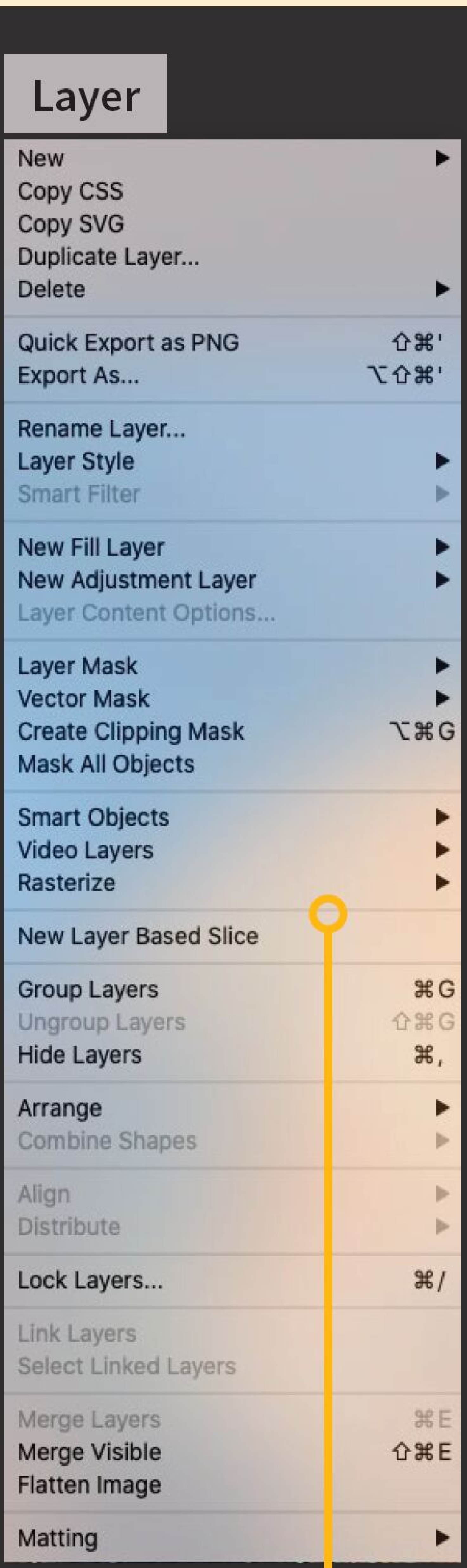


Image
Mode ▶
Adjustments ▶
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation ▶
Crop
Trim...
Reveal All
Duplicate...
Apply Image...
Calculations...
Variables ▶
Apply Data Set...
Trap...
Analysis ▶

Image

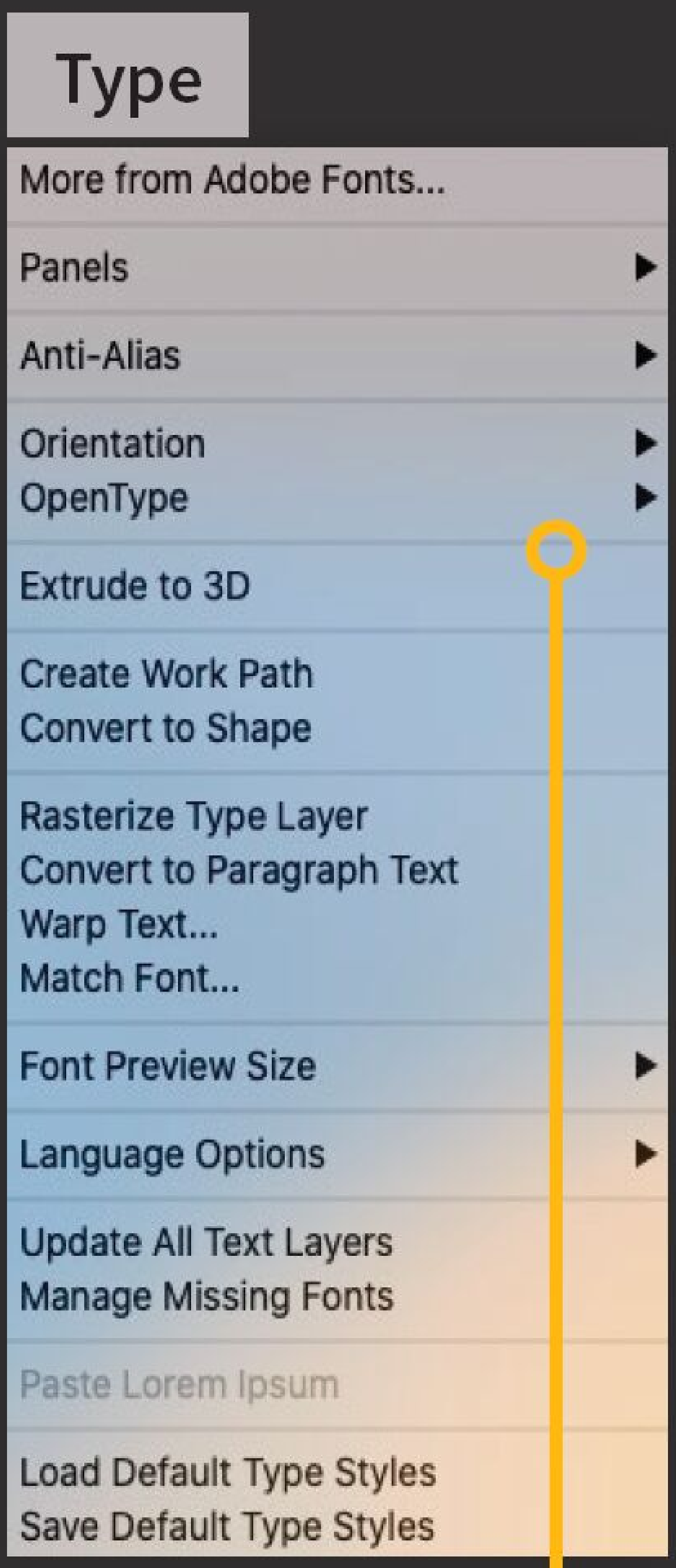
The Image menu is where you come to make changes to the whole image, including Mode (colour type), Image Size, Canvas Size and Image Rotation, but the most important thing you'll find here is the Adjustments sub-menu, which Adobe could probably have made into a separate main menu in its own right. Under Adjustments you'll find all your main image controls, such as Brightness/Contrast, Levels, Curves, Hue/Saturation and many more. You'll find many of these duplicated on the Adjustment Layer palette.


Brightness/Contrast...
Levels... ⌘L
Curves... ⌘M
Exposure...
Vibrance...
Hue/Saturation... ⌘U
Color Balance... ⌘B
Black & White... ⌥⇧⌘B


Layer
New ▶
Copy CSS
Copy SVG
Duplicate Layer...
Delete ▶
Quick Export as PNG ⇧⌘'
Export As... ⌥⇧⌘'
Rename Layer...
Layer Style ▶
Smart Filter ▶
New Fill Layer ▶
New Adjustment Layer ▶
Layer Content Options...
Layer Mask ▶
Vector Mask ▶
Create Clipping Mask ⌥⌘G
Mask All Objects
Smart Objects ▶
Video Layers ▶
Rasterize ▶
New Layer Based Slice
Group Layers ⌘G
Ungroup Layers ⇧⌘G
Hide Layers ⌘,
Arrange ▶
Combine Shapes ▶
Align ▶
Distribute ▶
Lock Layers... ⌘/
Link Layers
Select Linked Layers
Merge Layers ⌘E
Merge Visible ⇧⌘E
Flatten Image
Matting ▶

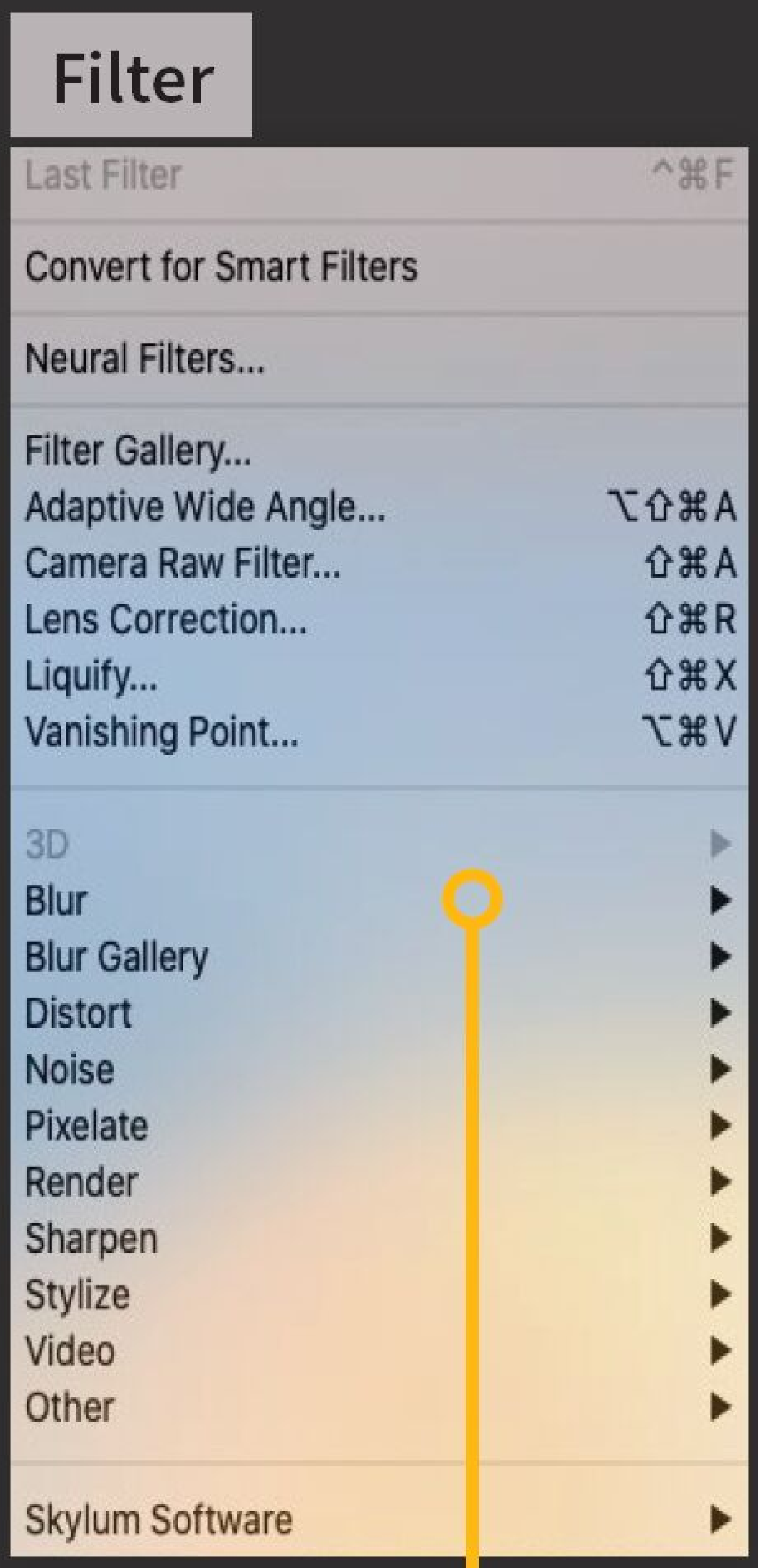
Layer

Layers are a vital feature of Photoshop. The most important options here though are New, which lets you create and name a new layer and New Adjustment Layer, which adds a non-destructive editing layer to your image. The Merge and Flatten options can also be found here along with Mask and Slice options.


Type
More from Adobe Fonts...
Panels
Anti-Alias
Orientation
OpenType
Extrude to 3D
Create Work Path
Convert to Shape
Rasterize Type Layer
Convert to Paragraph Text
Warp Text...
Match Font...
Font Preview Size
Language Options
Update All Text Layers
Manage Missing Fonts
Paste Lorem Ipsum
Load Default Type Styles
Save Default Type Styles

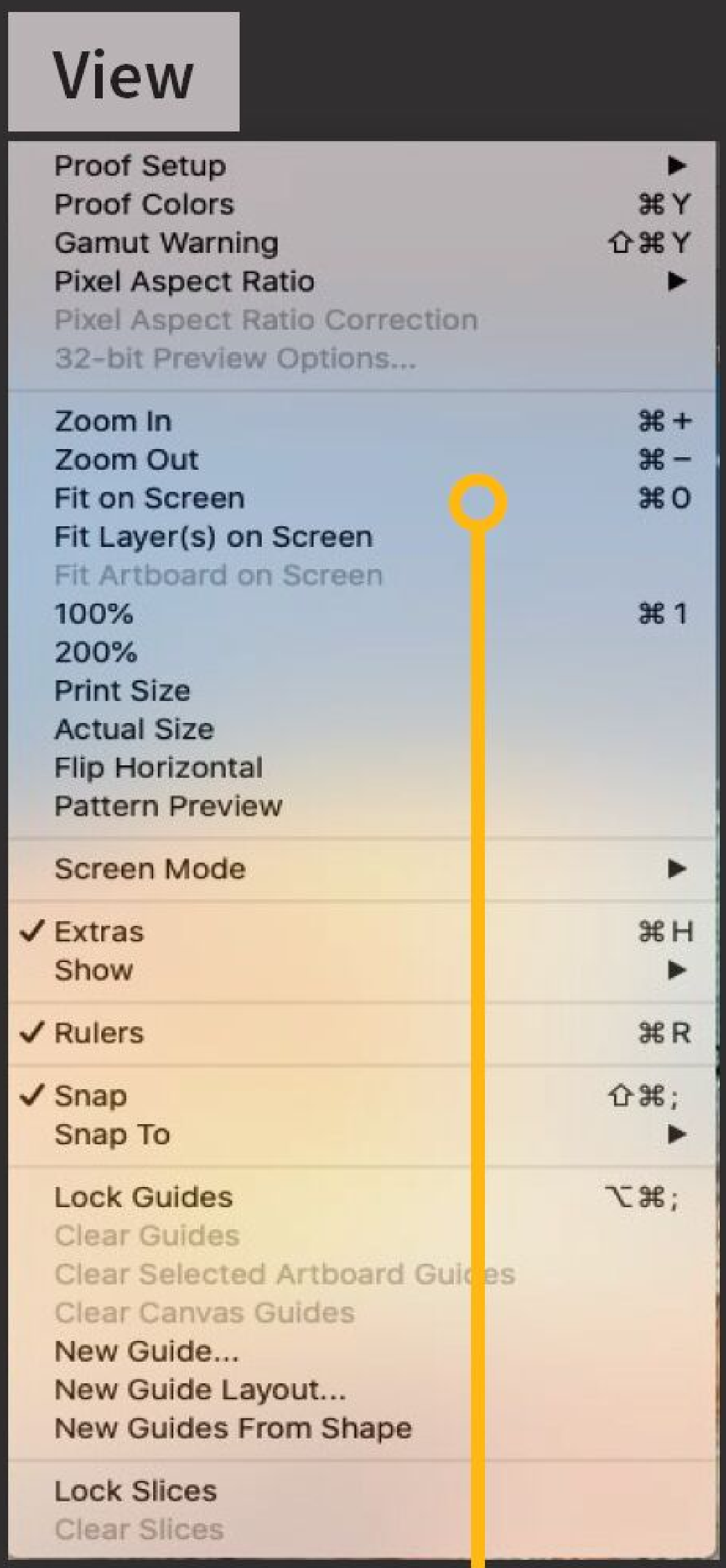
Type

The latest version of Photoshop includes many new text presentation and handling options. Most of these can be found in the fly-out Character and Paragraph panels on the right of the screen or the Panels option. Others can be found here, including 3D text, warping and special foreign language options and glyphs.


Filter
Last Filter ^⌘F
Convert for Smart Filters
Neural Filters...
Filter Gallery...
Adaptive Wide Angle... ⌥⇧⌘A
Camera Raw Filter... ⇧⌘A
Lens Correction... ⇧⌘R
Liquify... ⇧⌘X
Vanishing Point... ⌥⌘V
3D
Blur
Blur Gallery
Distort
Noise
Pixelate
Render
Sharpen
Stylize
Video
Other
Skylum Software

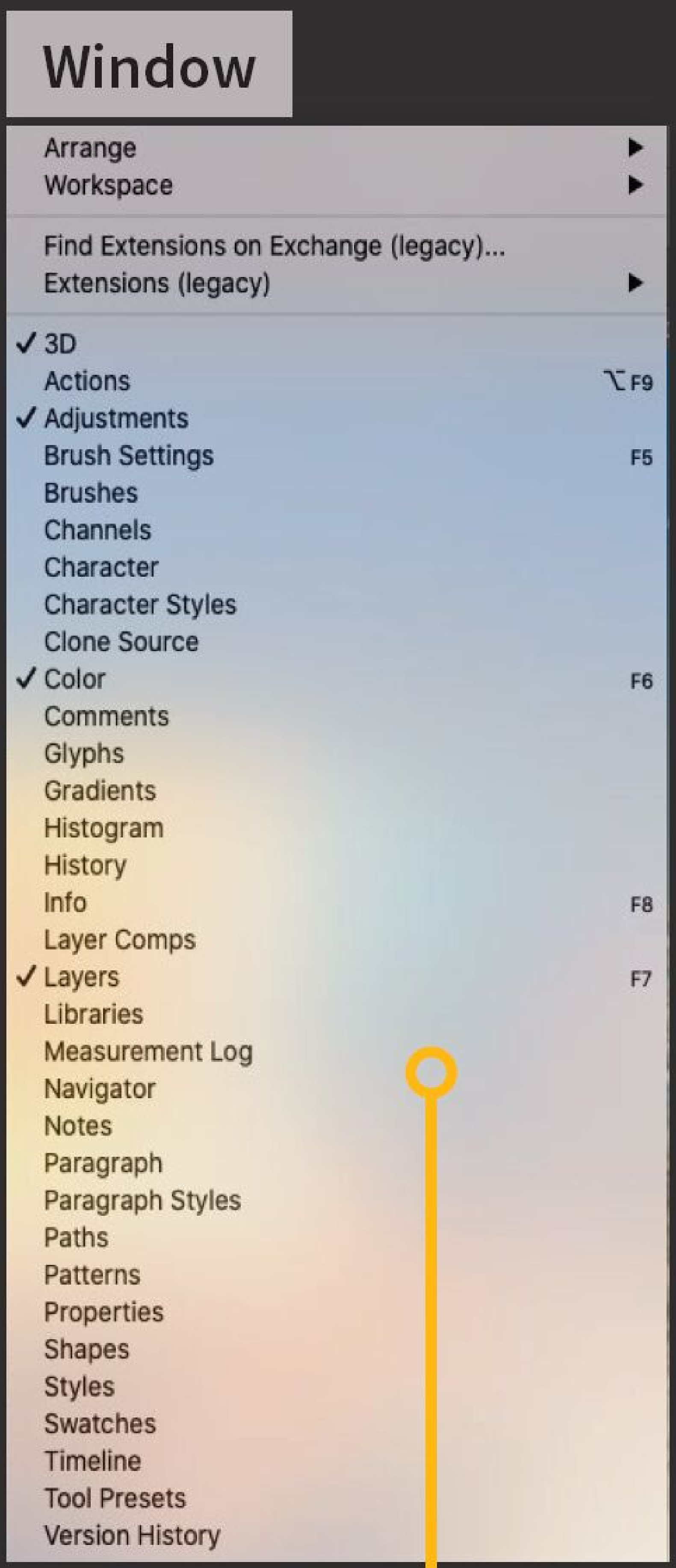
Filter

Photoshop CS6 and Creative Cloud saw a major overhaul of the Filters menu, with many new options, including the amazing Adaptive Wide Angle feature. There's the ever-popular Liquify filter, automatic lens distortion correction, as well as a huge range of other filters and effects. Make sure you don't go too wild though, most of them are best used sparingly!


View
Proof Setup
Proof Colors ⌘Y
Gamut Warning ⇧⌘Y
Pixel Aspect Ratio
Pixel Aspect Ratio Correction
32-bit Preview Options...
Zoom In ⌘+
Zoom Out ⌘−
Fit on Screen ⌘0
Fit Layer(s) on Screen
Fit Artboard on Screen
100% ⌘1
200%
Print Size
Actual Size
Flip Horizontal
Pattern Preview
Screen Mode
✓ Extras ⌘H
Show
✓ Rulers ⌘R
✓ Snap ⇧⌘;
Snap To
Lock Guides ⌥⌘;
Clear Guides
Clear Selected Artboard Guides
Clear Canvas Guides
New Guide...
New Guide Layout...
New Guides From Shape
Lock Slices
Clear Slices

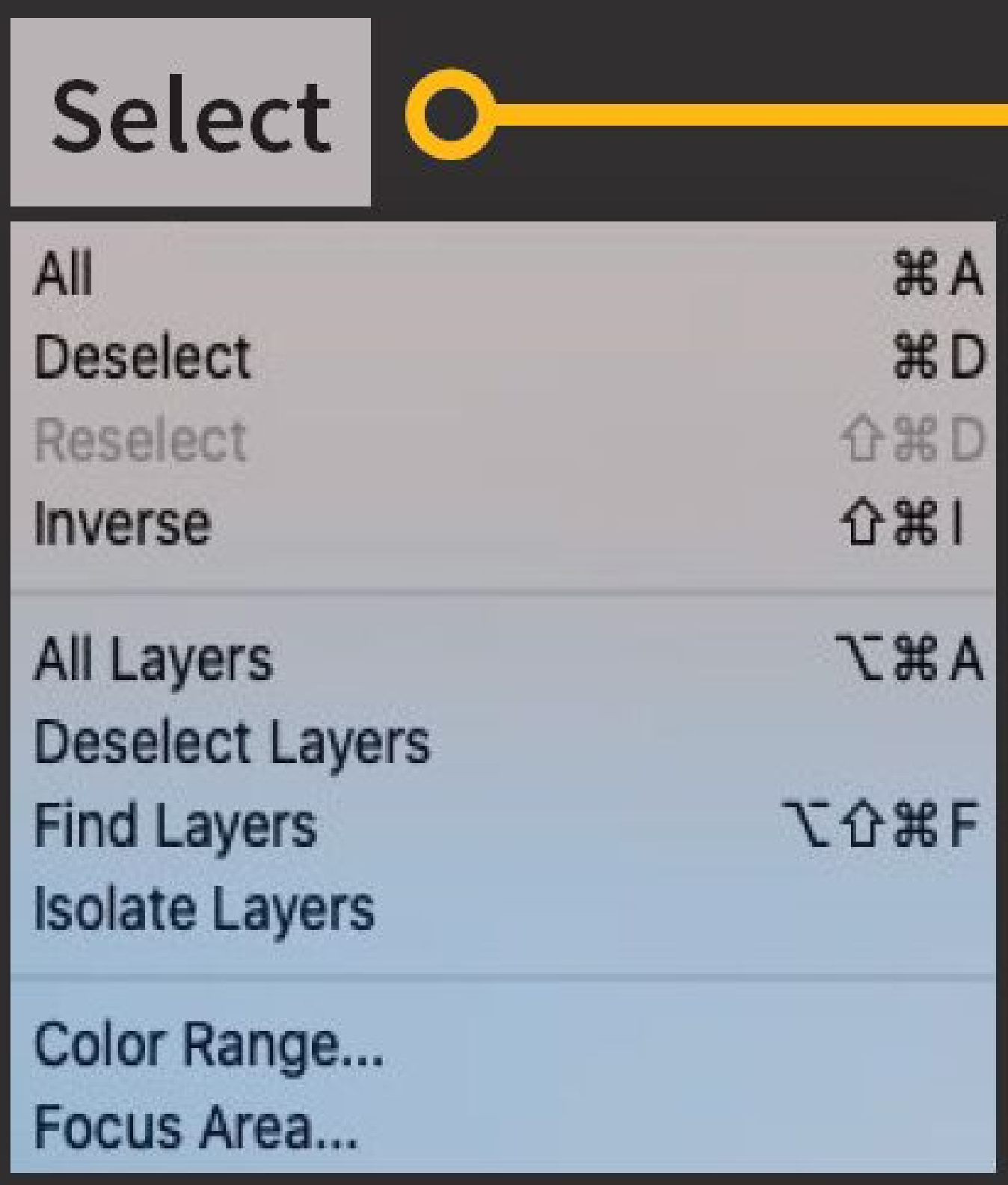
View

The View menu is home to the basic viewing controls such as zoom level, but again you'll want to control those using shortcuts to save time. You'll also find the very useful controls for the Snap functions, including guide lines, essential when you're laying out a more complex design or composing text on an image.


Window
Arrange
Workspace
Find Extensions on Exchange (legacy)...
Extensions (legacy)
✓ 3D
Actions ⌥F9
✓ Adjustments
Brush Settings F5
Brushes
Channels
Character
Character Styles
Clone Source
✓ Color F6
Comments
Glyphs
Gradients
Histogram
History
Info F8
Layer Comps
✓ Layers F7
Libraries
Measurement Log
Navigator
Notes
Paragraph
Paragraph Styles
Paths
Patterns
Properties
Shapes
Styles
Swatches
Timeline
Tool Presets
Version History

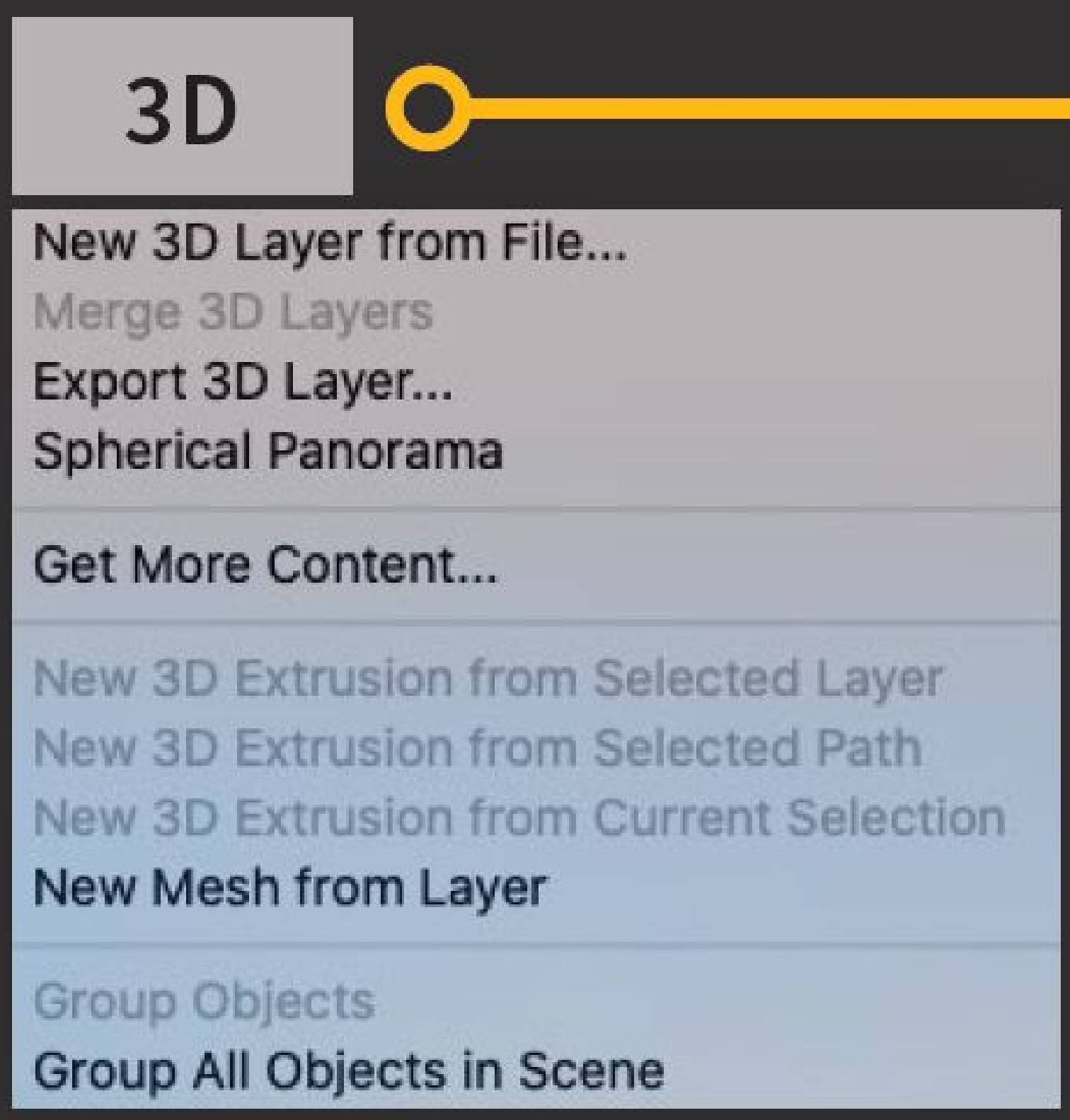
Window

This isn't a menu you'll be using constantly, but it does hold some very useful features, such as the Arrange and Workspace sub-menus, which allow you to control the layout of tabs, windows and the various tool palettes and panels.


Select
All ⌘A
Deselect ⌘D
Reselect ⇧⌘D
Inverse ⇧⌘I
All Layers ⌥⌘A
Deselect Layers
Find Layers ⌥⇧⌘F
Isolate Layers
Color Range...
Focus Area...

Select

The Select menu contains the main tools that let you control any or all selections that are currently active within your current document. Whether you've got the Lasso Tool active, Quick Selection or Magic Wand, you can modify and transform those selections here. You can also select all your layers or just items in selected layers.


3D
New 3D Layer from File...
Merge 3D Layers
Export 3D Layer...
Spherical Panorama
Get More Content...
New 3D Extrusion from Selected Layer
New 3D Extrusion from Selected Path
New 3D Extrusion from Current Selection
New Mesh from Layer
Group Objects
Group All Objects in Scene

3D

This is one of the more recent additions to the Photoshop workspace. The 3D menu lets you turn your document into a 3D environment where you can turn text into 3D objects, import 3D geometry and use lighting tools to create works of 3D art and computer generated imagery. You can even modify your object's surface colours and textures.

Keyboard Shortcuts

There’s always a quicker way of doing almost everything in Photoshop

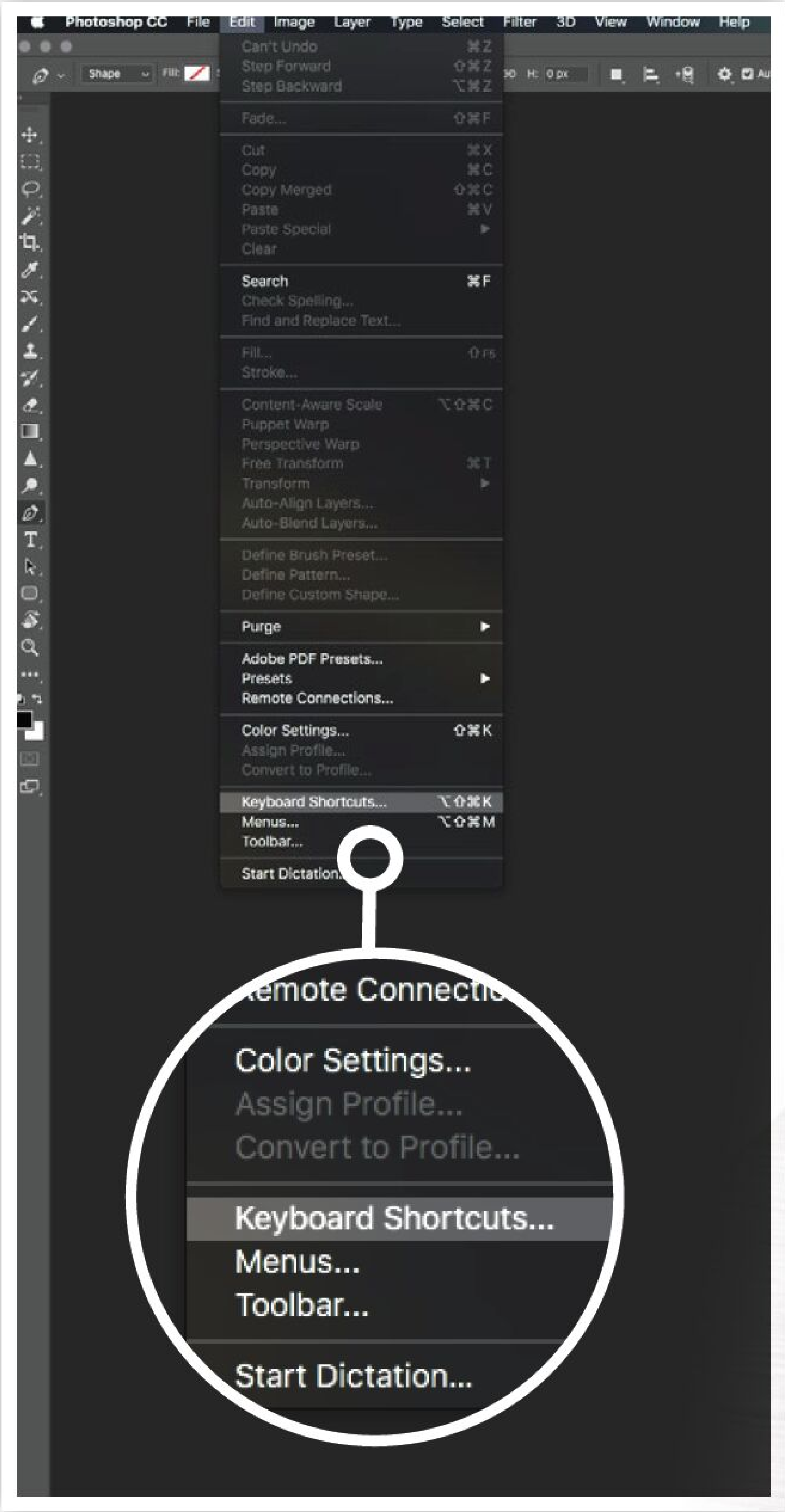
USEFUL TIP

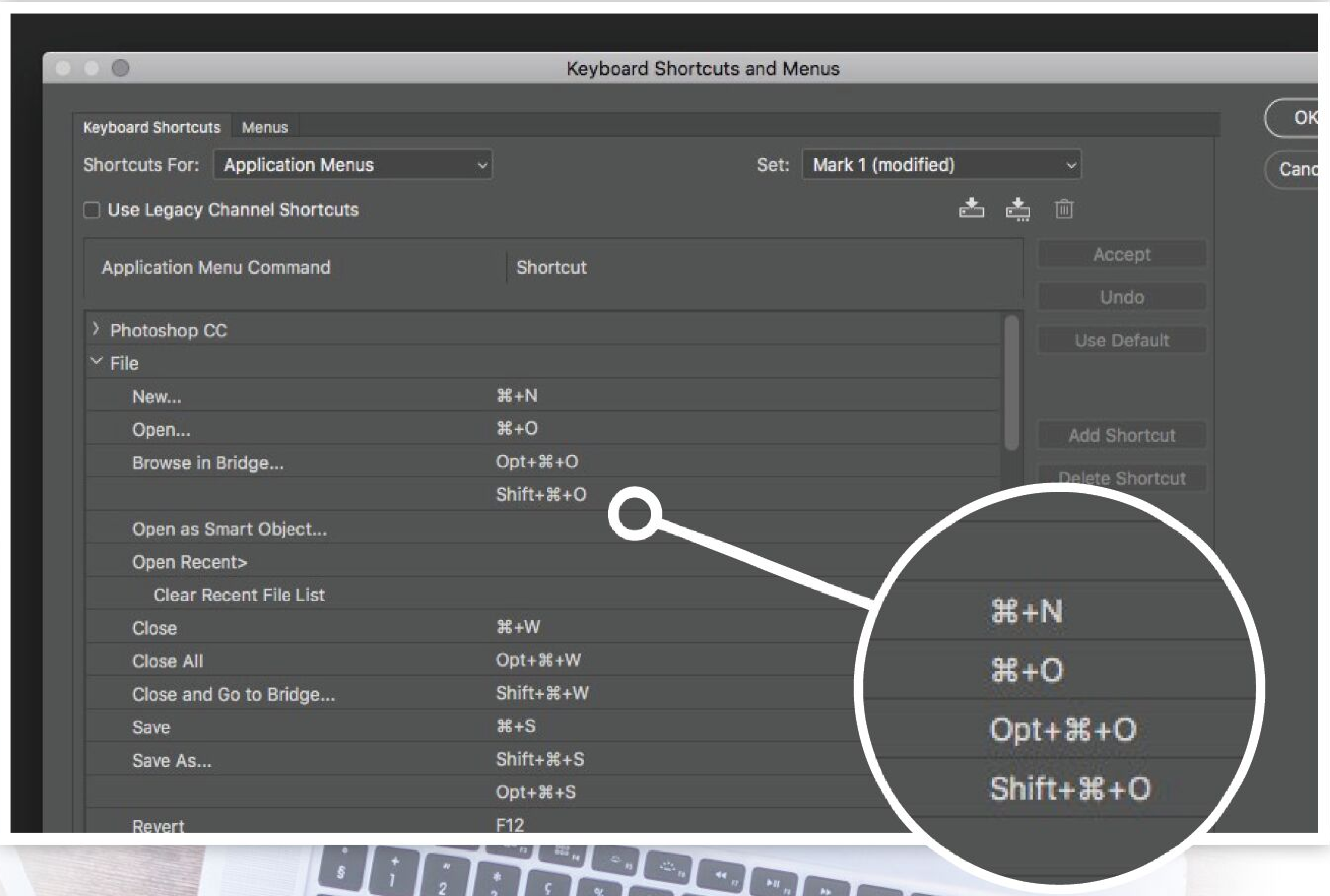
Learning the keyboard shortcuts will speed up your editing and you can also set up your own in the Edit menu. Just be aware of creating ‘shortcut collisions’ where a custom shortcut is the same as a current default one.

One of Photoshop’s best features is its huge list of fully customisable keyboard shortcuts. Almost all of the program’s functions can be accessed quickly by pressing various combinations of keys and once you learn those shortcuts your workflow will speed up immensely. You can even make up your own for your most frequently-used operations.

Customising Shortcuts

You’ll find the Keyboard Shortcut preferences menu at the bottom of the Edit menu, although naturally it has its own keyboard shortcut, Alt+Shift+Ctrl+K. You’ll find an exhaustive list of all Photoshop functions, broken down into category headings matching the names of the main menus. You’ll find that many operations already have their own default shortcuts. You can easily change these, or even add your own new ones. To apply a shortcut to an operation, first locate it in the list and then click in the space to the right of the name. You’ll see a small text window appear and the next key or combination of keys that you press will appear here. If the combination is already used by another shortcut you’ll see a notification warning you of this and asking if you want to proceed with the change. If you click Accept the new shortcut will be applied immediately. Take care when making your own shortcuts that you don’t accidentally overwrite some useful defaults.


Photoshop CC
File
Edit
Image
Layer
Type
Select
Filter
3D
View
Window
Help
Shape
Can't Undo ⌘Z
Step Forward ⇧⌘Z
Step Backward ⌥⌘Z
Fade... ⇧⌘F
Cut ⌘X
Copy ⌘C
Copy Merged ⇧⌘C
Paste ⌘V
Paste Special
Clear
Search ⌘F
Check Spelling...
Find and Replace Text...
Fill... ⇧F5
Stroke...
Content-Aware Scale ⌥⇧⌘C
Puppet Warp
Perspective Warp
Free Transform ⌘T
Transform
Auto-Align Layers...
Auto-Blend Layers...
Define Brush Preset...
Define Pattern...
Define Custom Shape...
Purge
Adobe PDF Presets...
Presets
Remote Connections...
Color Settings... ⇧⌘K
Assign Profile...
Convert to Profile...
Keyboard Shortcuts... ⌥⇧⌘K
Menus... ⌥⇧⌘M
Toolbar...
Start Dictation...
Remote Connections...
Color Settings...
Assign Profile...
Convert to Profile...
Keyboard Shortcuts...
Menus...
Toolbar...
Start Dictation...


Keyboard Shortcuts and Menus
Keyboard Shortcuts
Menus
OK
Cancel
Accept
Undo
Use Default
Add Shortcut
Delete Shortcut
⌘+N
⌘+O
Opt+⌘+O
Shift+⌘+O

Shortcuts For: Application Menus

Set: Mark 1 (modified)

☐ Use Legacy Channel Shortcuts

Application Menu Command	Shortcut
› Photoshop CC	
˅ File	
New...	⌘+N
Open...	⌘+O
Browse in Bridge...	Opt+⌘+O
	Shift+⌘+O
Open as Smart Object...	
Open Recent>	
Clear Recent File List	
Close	⌘+W
Close All	Opt+⌘+W
Close and Go to Bridge...	Shift+⌘+W
Save	⌘+S
Save As...	Shift+⌘+S
	Opt+⌘+S
Revert	F12

Some Useful Default Shortcuts

Here are some of the more commonly-used shortcuts for image editing. There are many more of course, but it's worth taking the time to memorise these ones. You'll work efficiently and they'll make your life a whole lot easier.

CREATE NEW DOCUMENT
control + N

CREATE NEW LAYER
shift + control + N

CLOSE CURRENT DOCUMENT
control + W

CLOSE ALL DOCUMENTS
alt + control + W

SAVE CURRENT DOCUMENT
control + S

SAVE AS
control + shift + S

UNDO LAST STEP
control + Z

TOGGLE LAST STATE
alt + control + Z

REDO LAST STEP
shift + control + Z

LEVELS
control + L

CURVES
control + M

INCREASE BRUSH SIZE
}]

DECREASE BRUSH SIZE
{ [

BRING CURRENT LAYER TO TOP
shift + control + }]

MOVE CURRENT LAYER UP
control + }]

MOVE CURRENT LAYER DOWN
control + { [

INVERT SELECTION
shift + control + I

ZOOM IN VIEW
control + + =

ZOOM OUT VIEW
control + – _

FIT ON SCREEN
control +) 0

100% ZOOM
alt + control +) 0

SHOW RULERS
control + R

SHOW OR HIDE GRID
control + " '

SHOW OR HIDE GUIDES
control + : ;

PASTE FROM CLIPBOARD
control + V

COPY TO CLIPBOARD
control + C

CUT TO CLIPBOARD
control + X

FREE TRANSFORM
control + T

TURN SNAP ON OR OFF
shift + control + : ;

SELECT ALL ON CURRENT LAYER
control + A

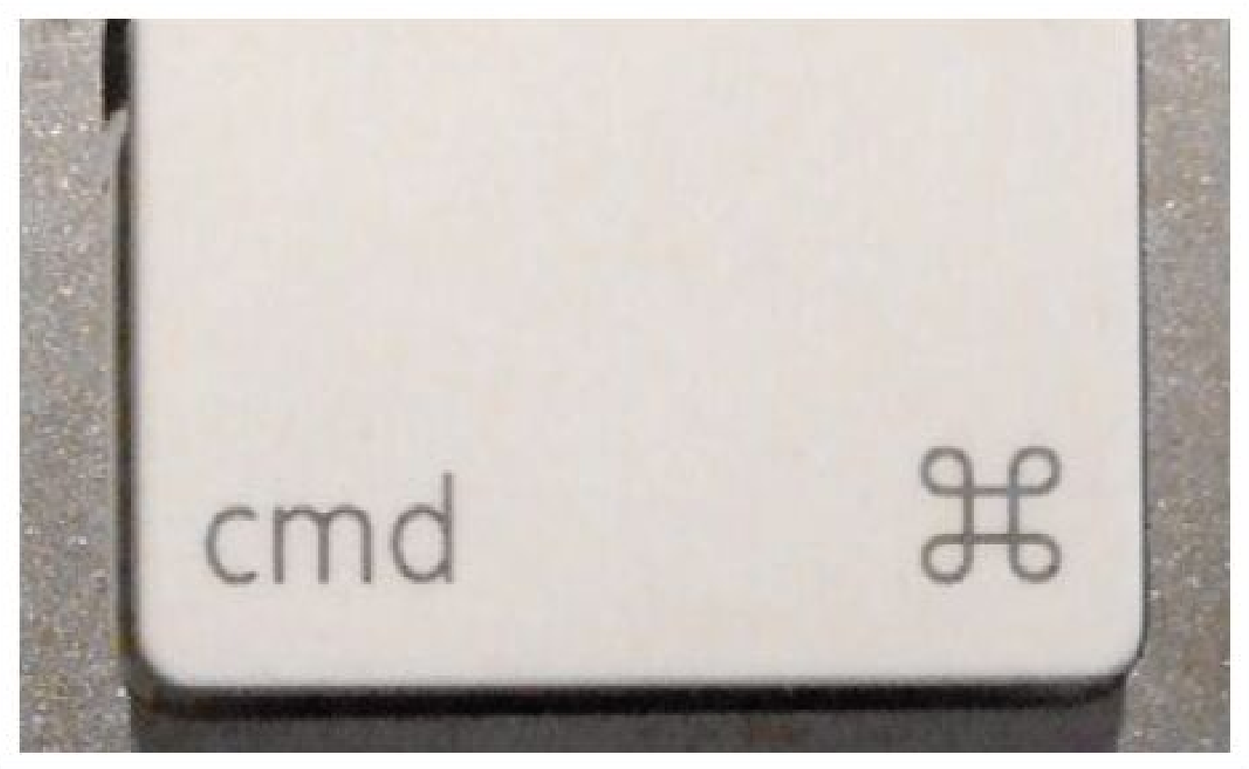
DESELECT ALL
control + D

HELP
F1

Important Note

On a PC the Ctrl key for your shortcuts looks like this on a standard Windows keyboard. If you use a PC and you see an instruction in this title to use a Cmd key, then just use Ctrl instead.

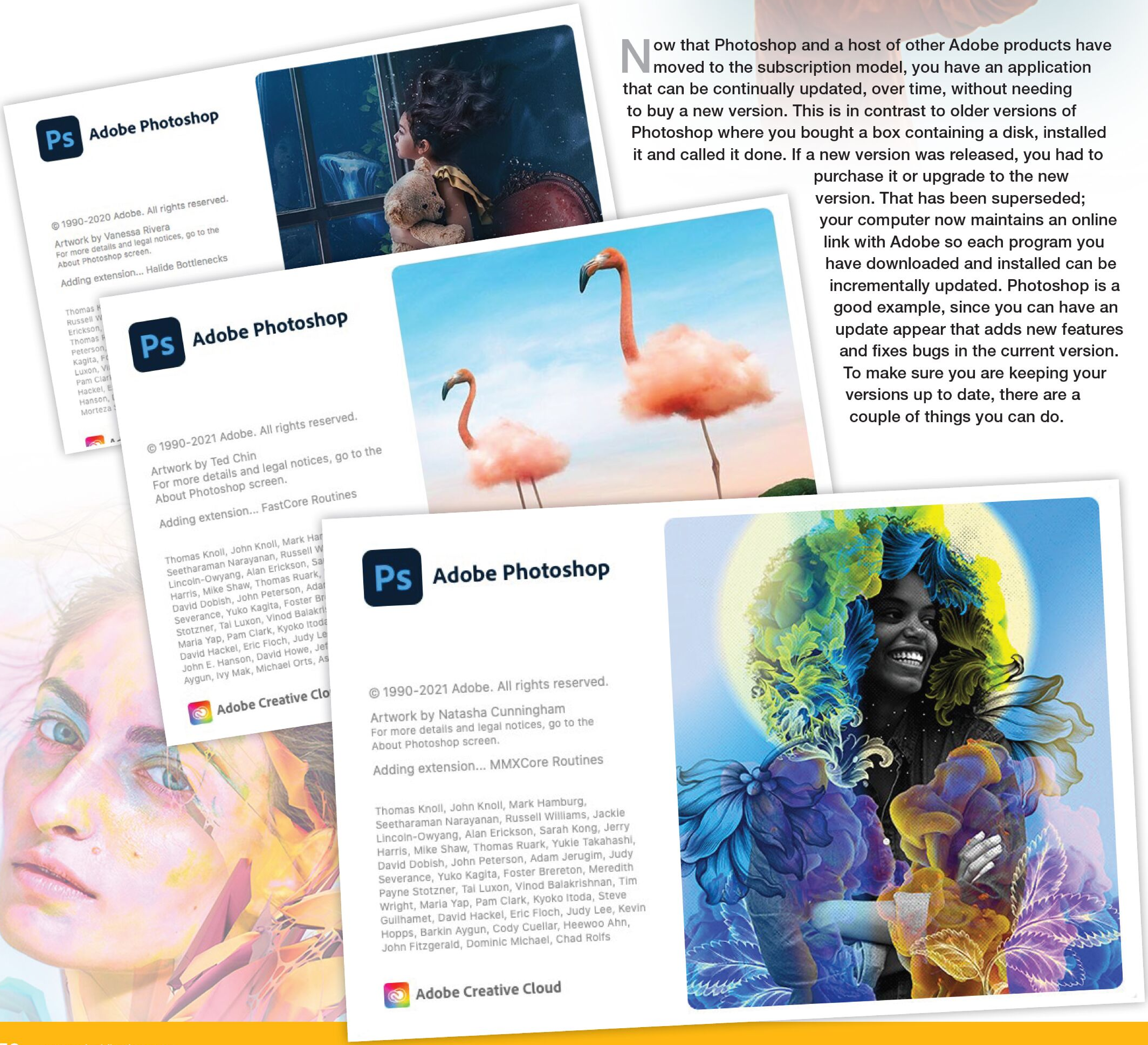
On a Mac computer the Ctrl key is replaced by the Cmd key on a standard Mac keyboard. If you use a Mac and you see an instruction in this title to use the Ctrl key, just use your Cmd key instead.



Keep Photoshop Up to Date

Reap the benefits of the most current versions of Photoshop

Now that Photoshop and a host of other Adobe products have moved to the subscription model, you have an application that can be continually updated, over time, without needing to buy a new version. This is in contrast to older versions of Photoshop where you bought a box containing a disk, installed it and called it done. If a new version was released, you had to purchase it or upgrade to the new version. That has been superseded; your computer now maintains an online link with Adobe so each program you have downloaded and installed can be incrementally updated. Photoshop is a good example, since you can have an update appear that adds new features and fixes bugs in the current version. To make sure you are keeping your versions up to date, there are a couple of things you can do.



Adobe Photoshop

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Artwork by Vanessa Rivera
For more details and legal notices, go to the
About Photoshop screen.

Adding extension... Halide Bottlenecks

Thomas K
Russell W
Erickson,
Thomas R
Peterson,
Kagita, F
Luxon, Vi
Pam Clar
Hackel, E
Hanson,
Morteza

Adobe Photoshop

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Artwork by Ted Chin
For more details and legal notices, go to the
About Photoshop screen.

Adding extension... FastCore Routines

Thomas Knoll, John Knoll, Mark Har
Seetharaman Narayanan, Russell W
Lincoln-Owyang, Alan Erickson, Sa
Harris, Mike Shaw, Thomas Ruark,
David Dobish, John Peterson, Adar
Severance, Yuko Kagita, Foster Br
Stotzner, Tai Luxon, Vinod Balakri
Maria Yap, Pam Clark, Kyoko Itoda
David Hackel, Eric Floch, Judy Le
John E. Hanson, David Howe, Jef
Aygun, Ivy Mak, Michael Orts, As

Adobe Creative Clo

Adobe Photoshop

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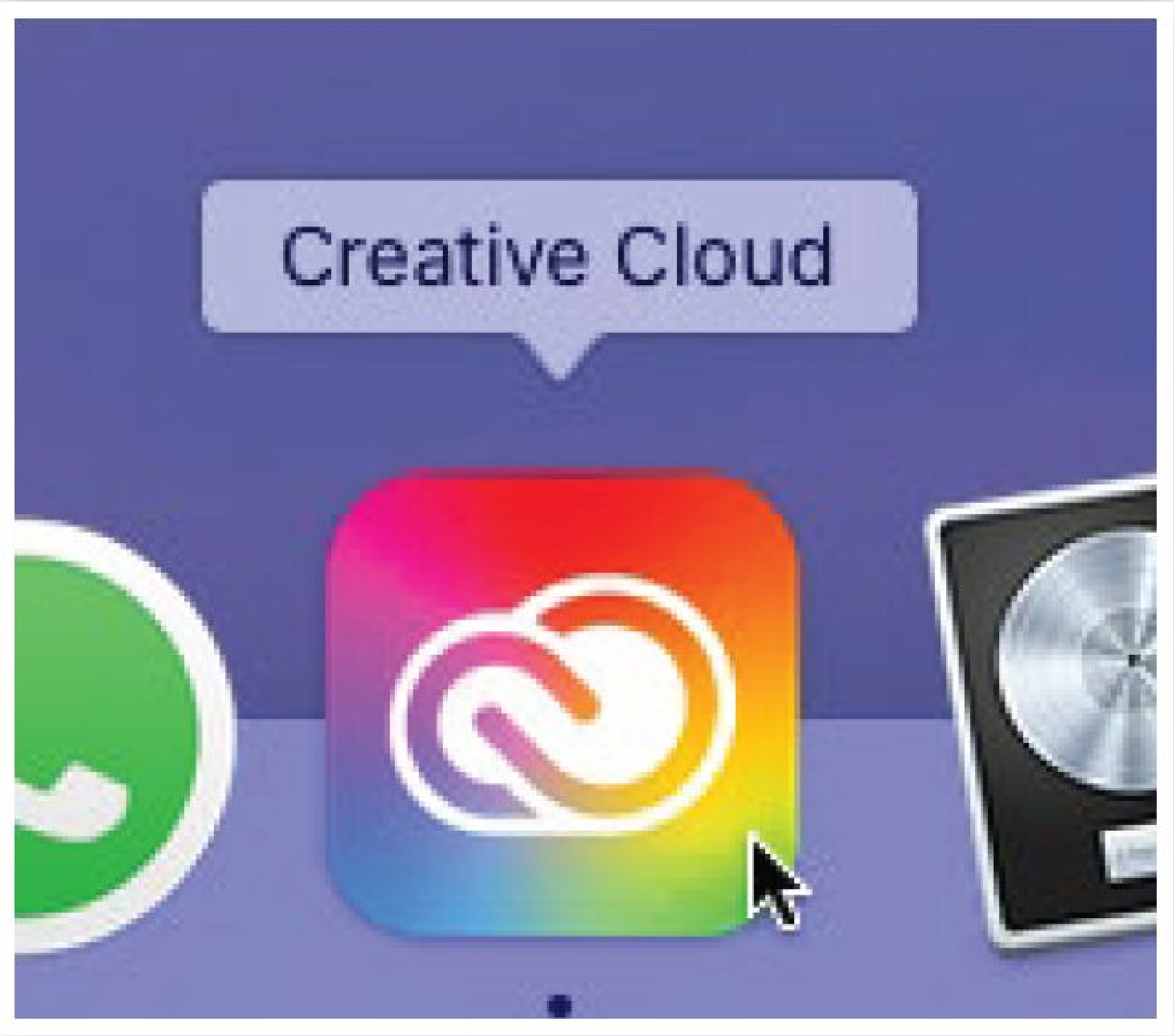
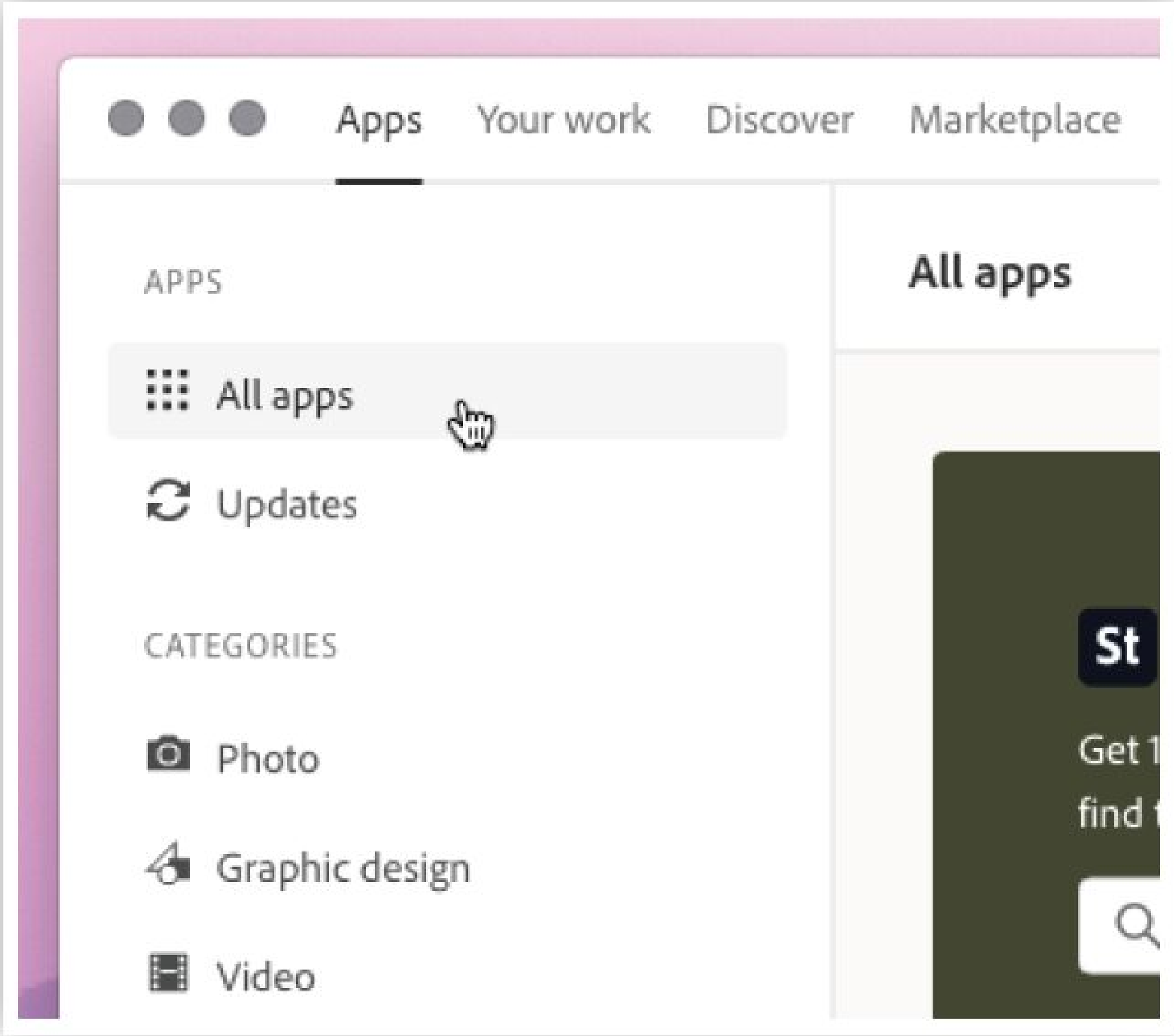
Artwork by Natasha Cunningham
For more details and legal notices, go to the
About Photoshop screen.

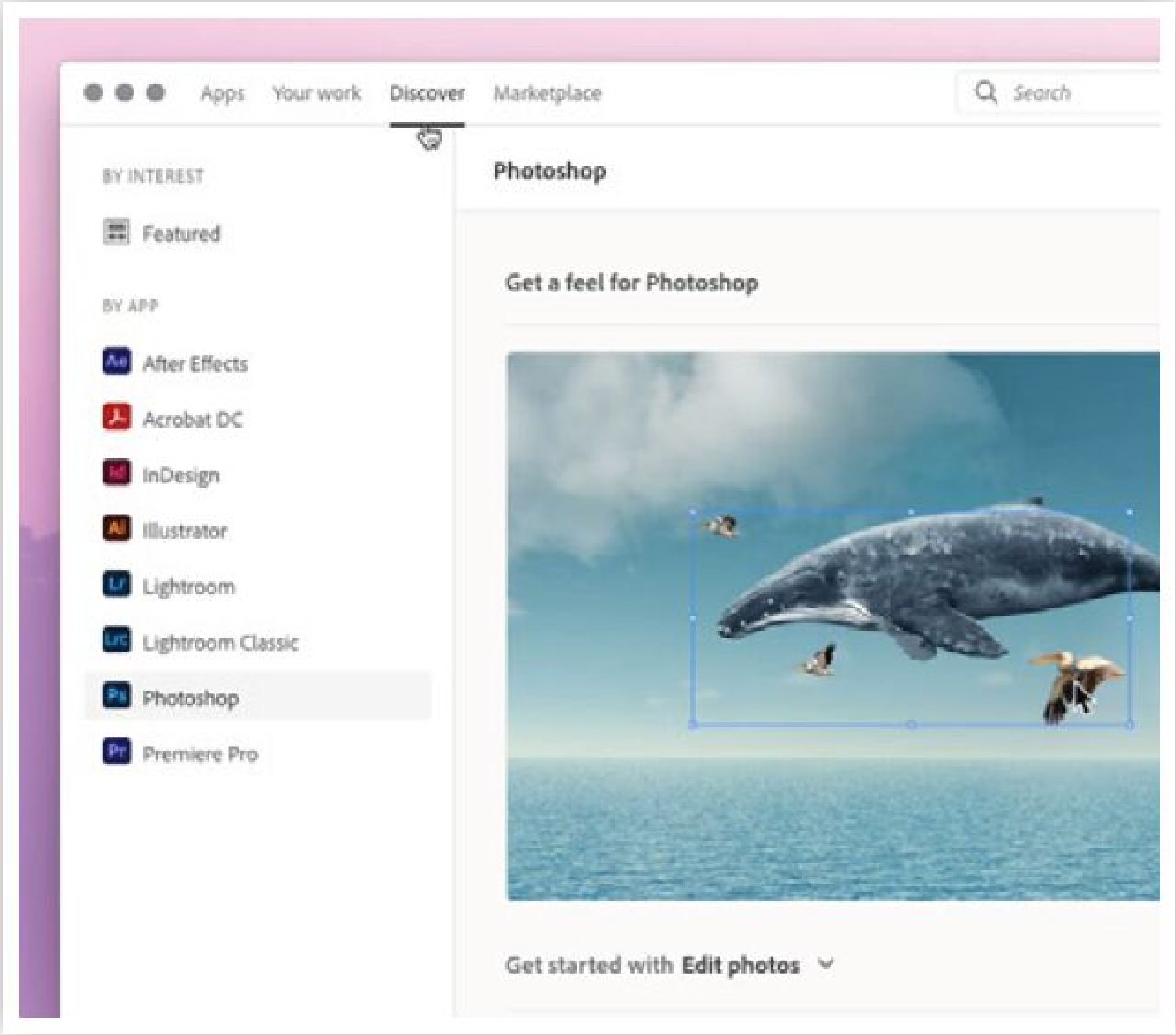
Adding extension... MMXCore Routines

Thomas Knoll, John Knoll, Mark Hamburg, Seetharaman Narayanan, Russell Williams, Jackie Lincoln-Owyang, Alan Erickson, Sarah Kong, Jerry Harris, Mike Shaw, Thomas Ruark, Yukie Takahashi, David Dobish, John Peterson, Adam Jerugim, Judy Severance, Yuko Kagita, Foster Brereton, Meredith Payne Stotzner, Tai Luxon, Vinod Balakrishnan, Tim Wright, Maria Yap, Pam Clark, Kyoko Itoda, Steve Guilhamet, David Hackel, Eric Floch, Judy Lee, Kevin Hopps, Barkin Aygun, Cody Cuellar, Heewoo Ahn, John Fitzgerald, Dominic Michael, Chad Rolfs

Adobe Creative Cloud


Creative Cloud

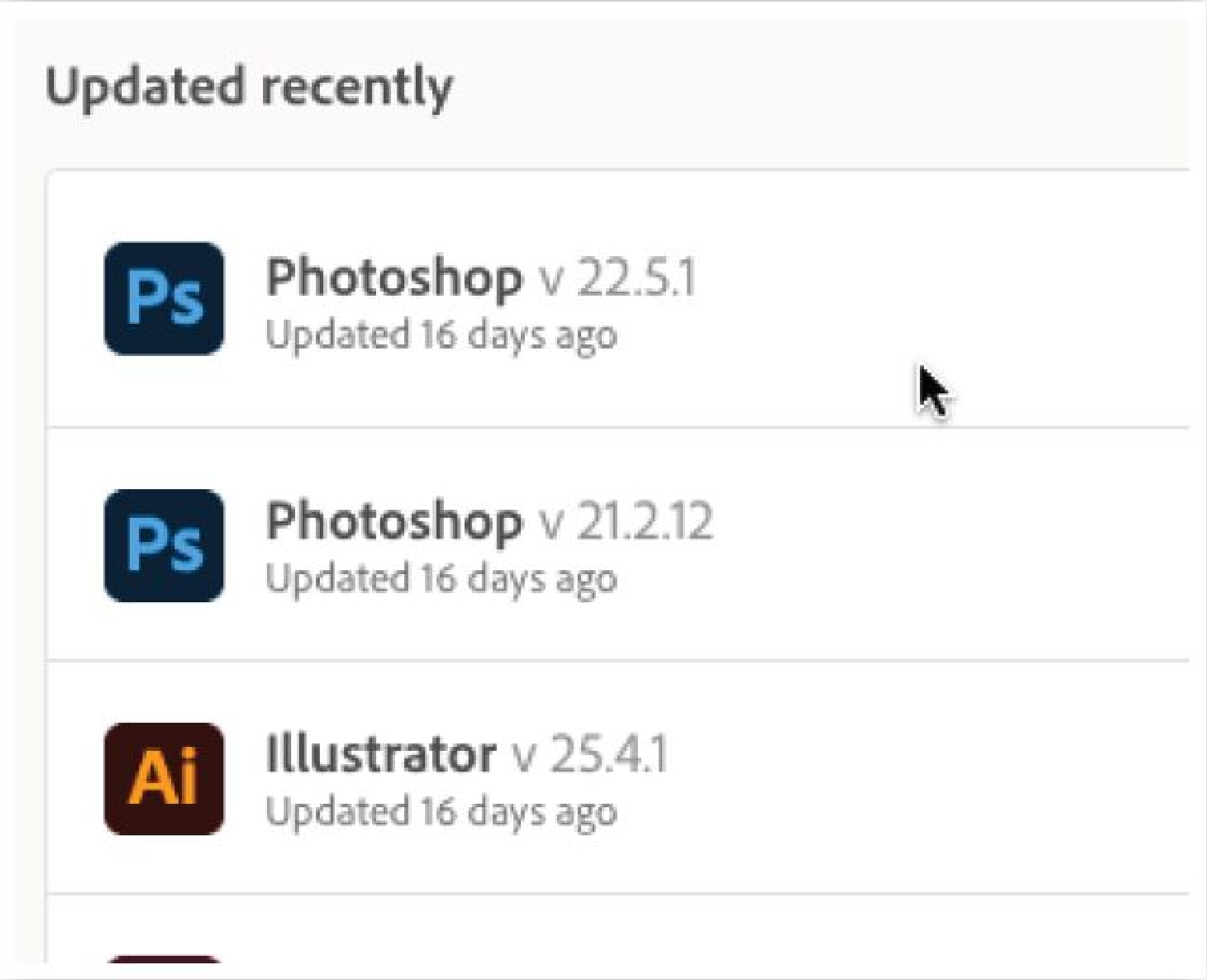

Apps
Your work
Discover
Marketplace
APPS
All apps
Updates
CATEGORIES
Photo
Graphic design
Video
All apps
St
Get
find


Apps
Your work
Discover
Marketplace
Search
BY INTEREST
Featured
BY APP
After Effects
Acrobat DC
InDesign
Illustrator
Lightroom
Lightroom Classic
Photoshop
Premiere Pro
Photoshop
Get a feel for Photoshop
Get started with Edit photos

01 When you purchase a particular subscription plan through Adobe, you download the Creative Cloud app which lets you manage your subscription, your apps, resources and much more besides. The app itself has been updated, but its basic functions remain the same.

02 When you open the Creative Cloud app, down the left side you are now presented with a menu containing Apps, Categories and Resource Links. If you click on All Apps, you can view everything installed as part of your subscription plan.

03 Click on Discover on the top menu bar and you can view a set of key features for each app installed. There are videos you can watch, along with links to tutorials and examples. There are also links to more resources and a search function for further information.

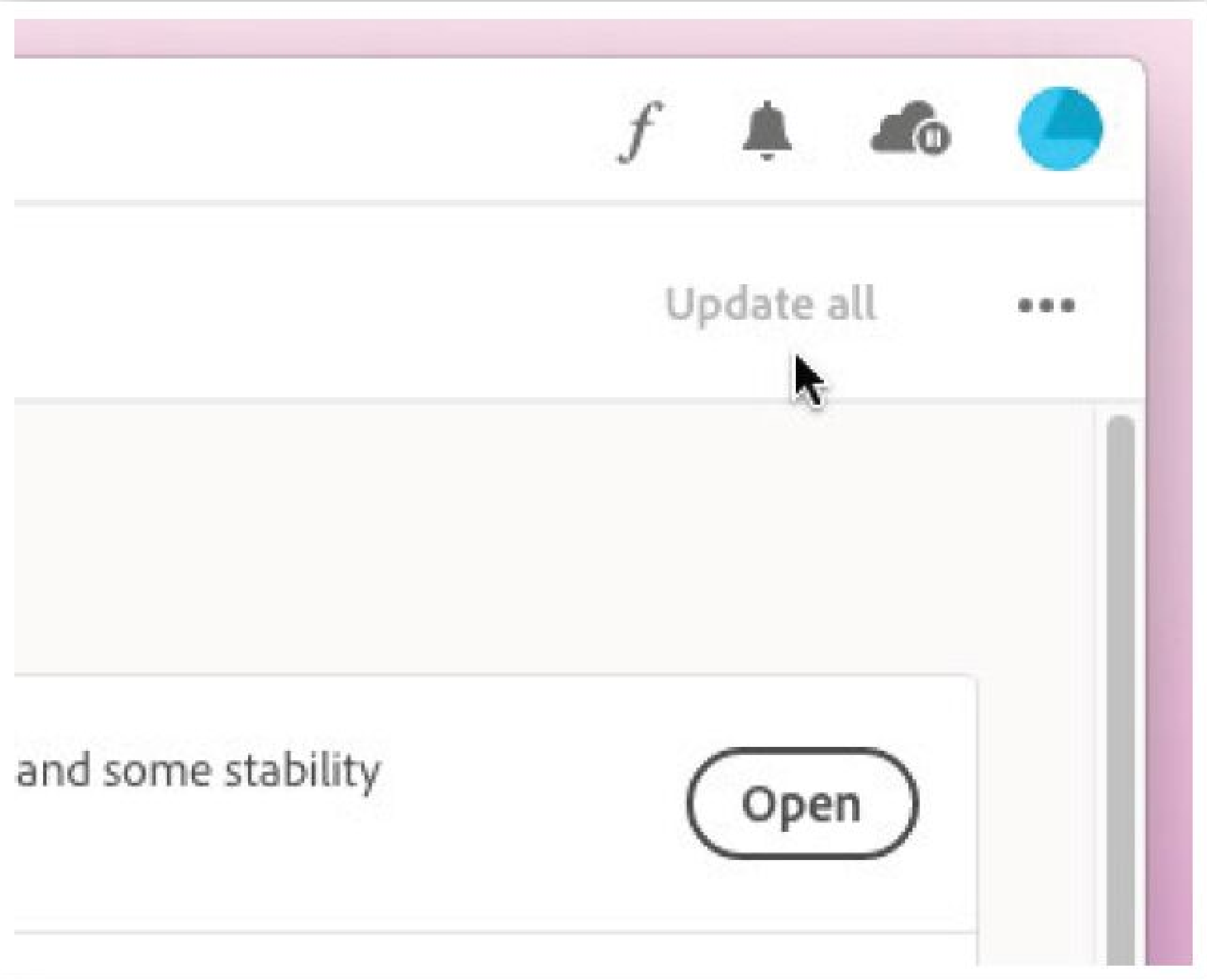


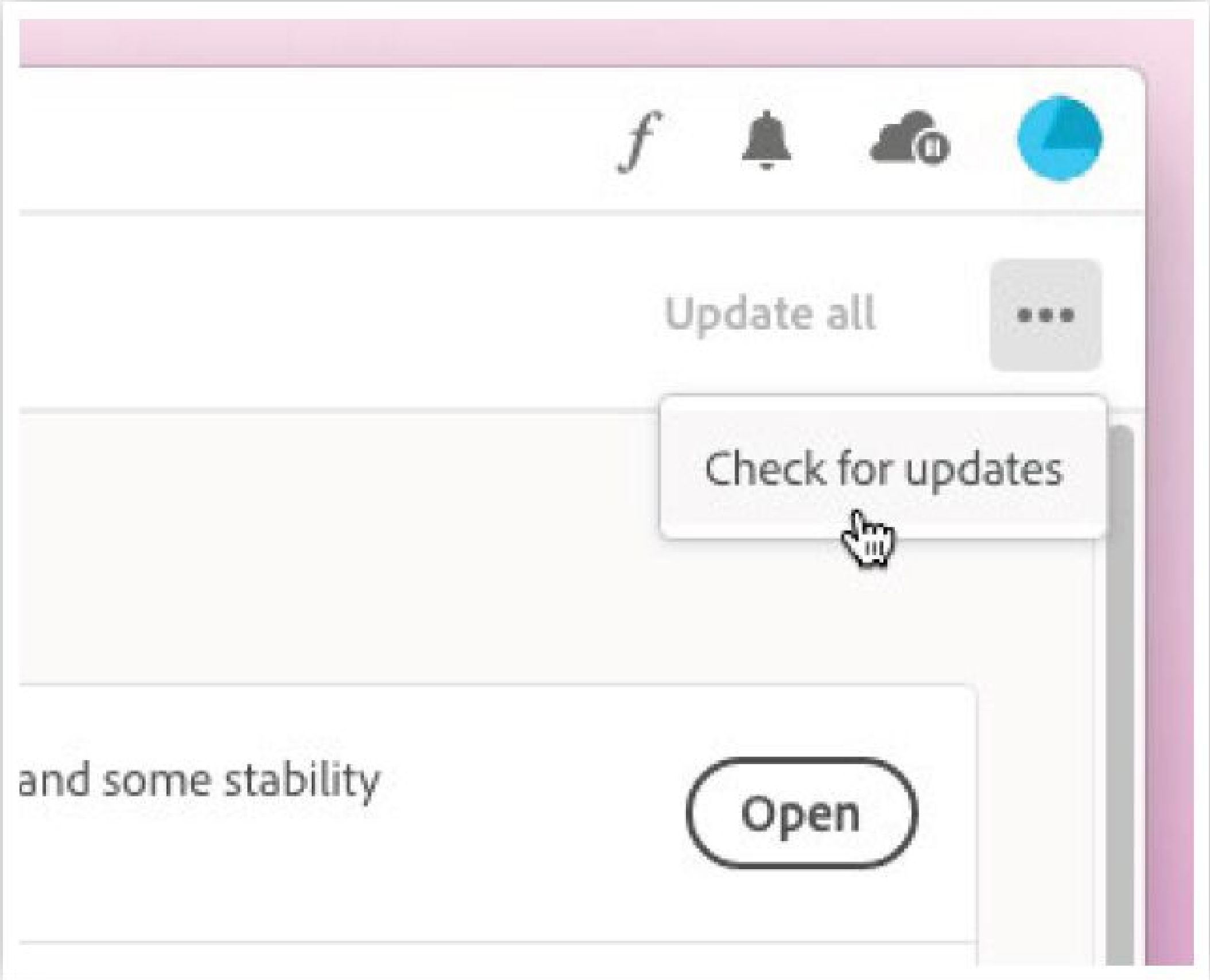
Updated recently

Photoshop v 22.5.1
Updated 16 days ago

Photoshop v 21.2.12
Updated 16 days ago

Illustrator v 25.4.1
Updated 16 days ago

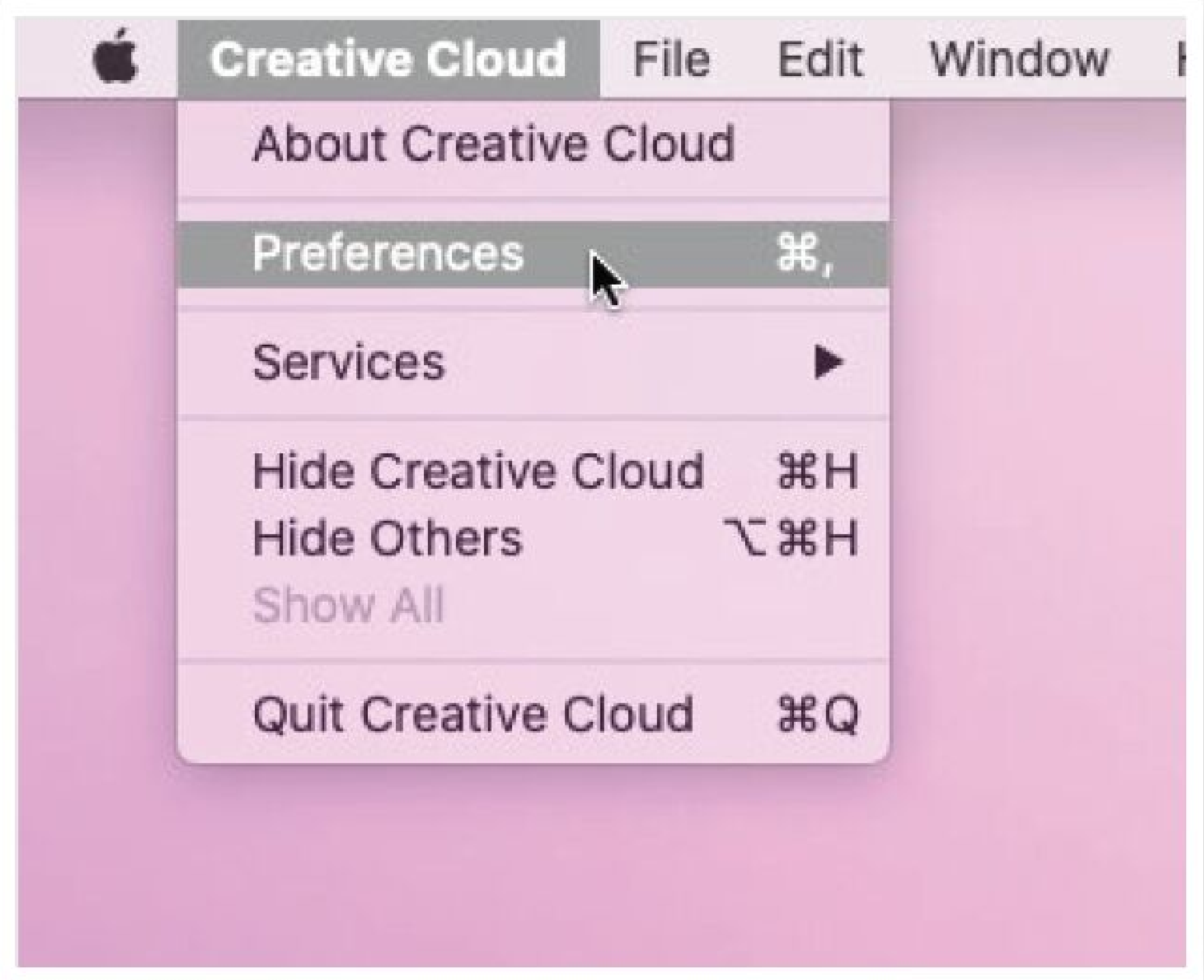

Update all
and some stability
Open

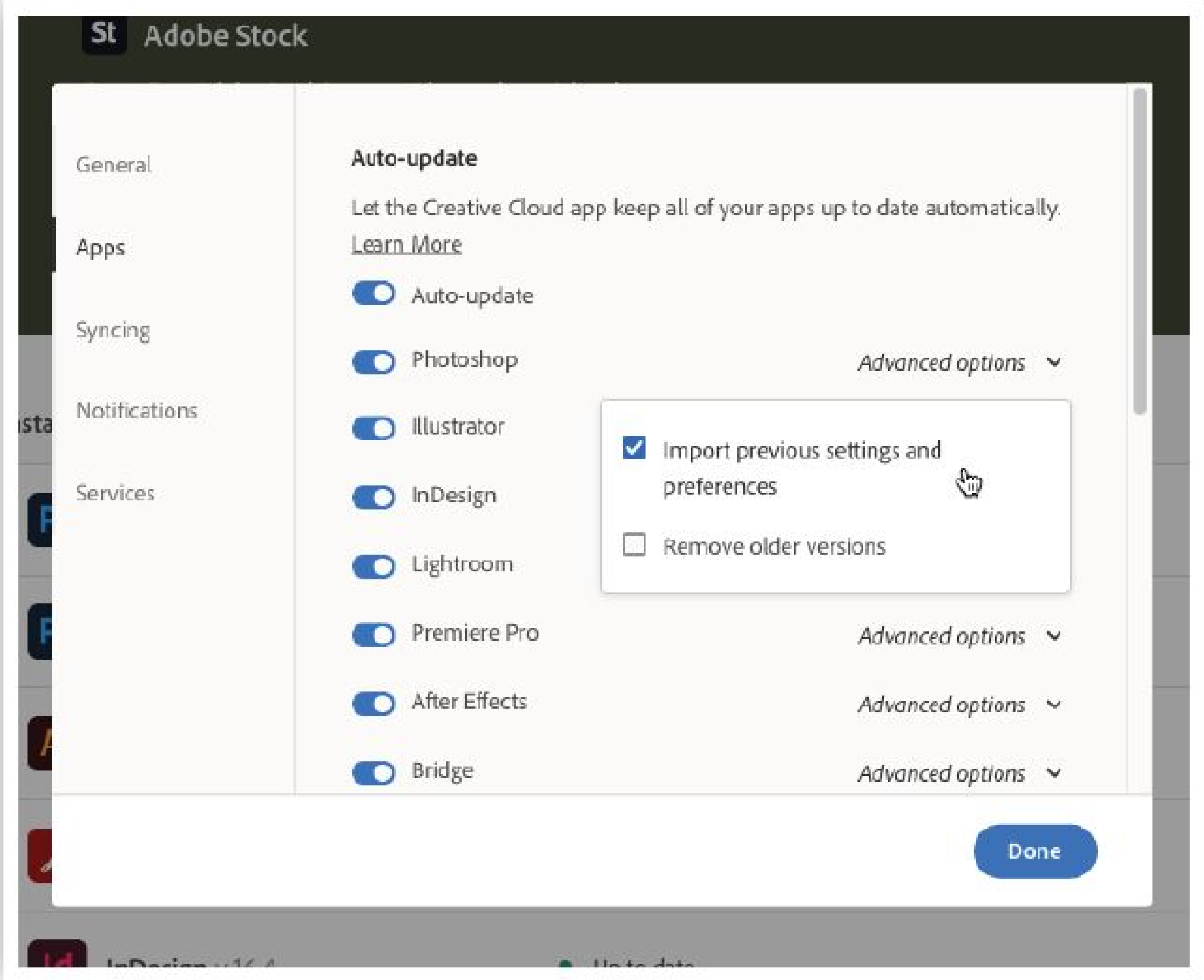

Update all
Check for updates
and some stability
Open

04 Below All Apps, in the top left of the page, is the Updates button where you can access any update info. This opens a page where you can view what can be updated, has recently been updated and a listing of what's new with each updated application.

05 Staying on this page, if you look up to the top right corner, you will see an Update All button. This can globally update all apps marked as having an update available. Next to that is a small icon comprised of three dots which contains a drop down list.

06 If you click on the Three dots icon, it brings up a small window called Check For Updates. If you click this, you can force it to rescan all applications and advise if there are any new updates currently available. This can be automated and we'll look at that next.


Creative Cloud
File
Edit
Window
About Creative Cloud
Preferences ⌘,
Services ▶
Hide Creative Cloud ⌘H
Hide Others ⌥⌘H
Show All
Quit Creative Cloud ⌘Q

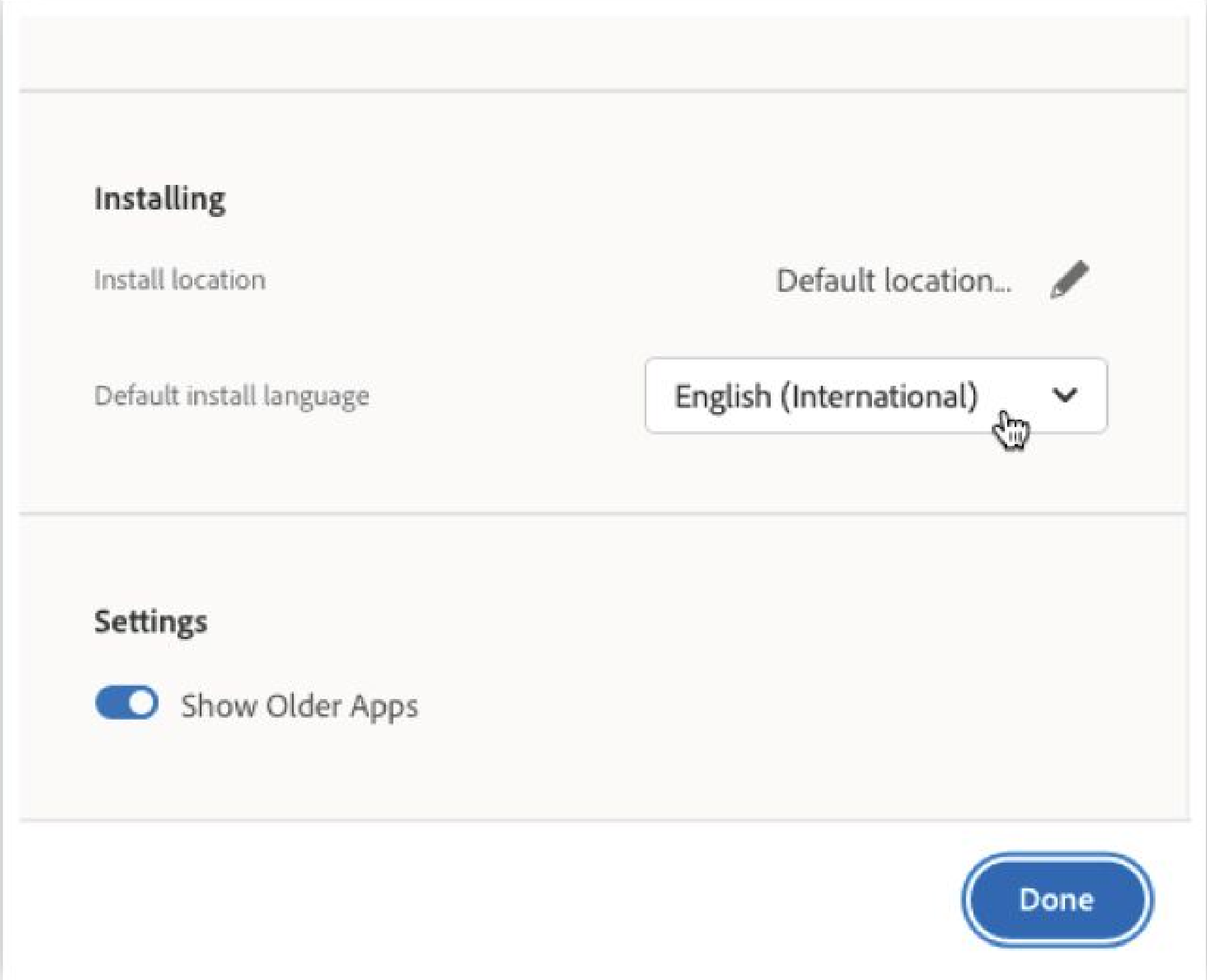

St Adobe Stock
General
Apps
Syncing
Notifications
Services
Done

Auto-update

Let the Creative Cloud app keep all of your apps up to date automatically. Learn More

- ● Auto-update
- ● Photoshop — Advanced options
- ● Illustrator
- ● InDesign
- ● Lightroom
- ● Premiere Pro — Advanced options
- ● After Effects — Advanced options
- ● Bridge — Advanced options

☑ Import previous settings and preferences
☐ Remove older versions



Installing

Install location: Default location...

Default install language: English (International)

Settings

● Show Older Apps

07 In the main file menu of your desktop, you can access Preferences for the Creative Cloud app. You'll see the various preferences that you can alter to suit your requirements. The General pane has a link to your Adobe account and Cloud Storage status.

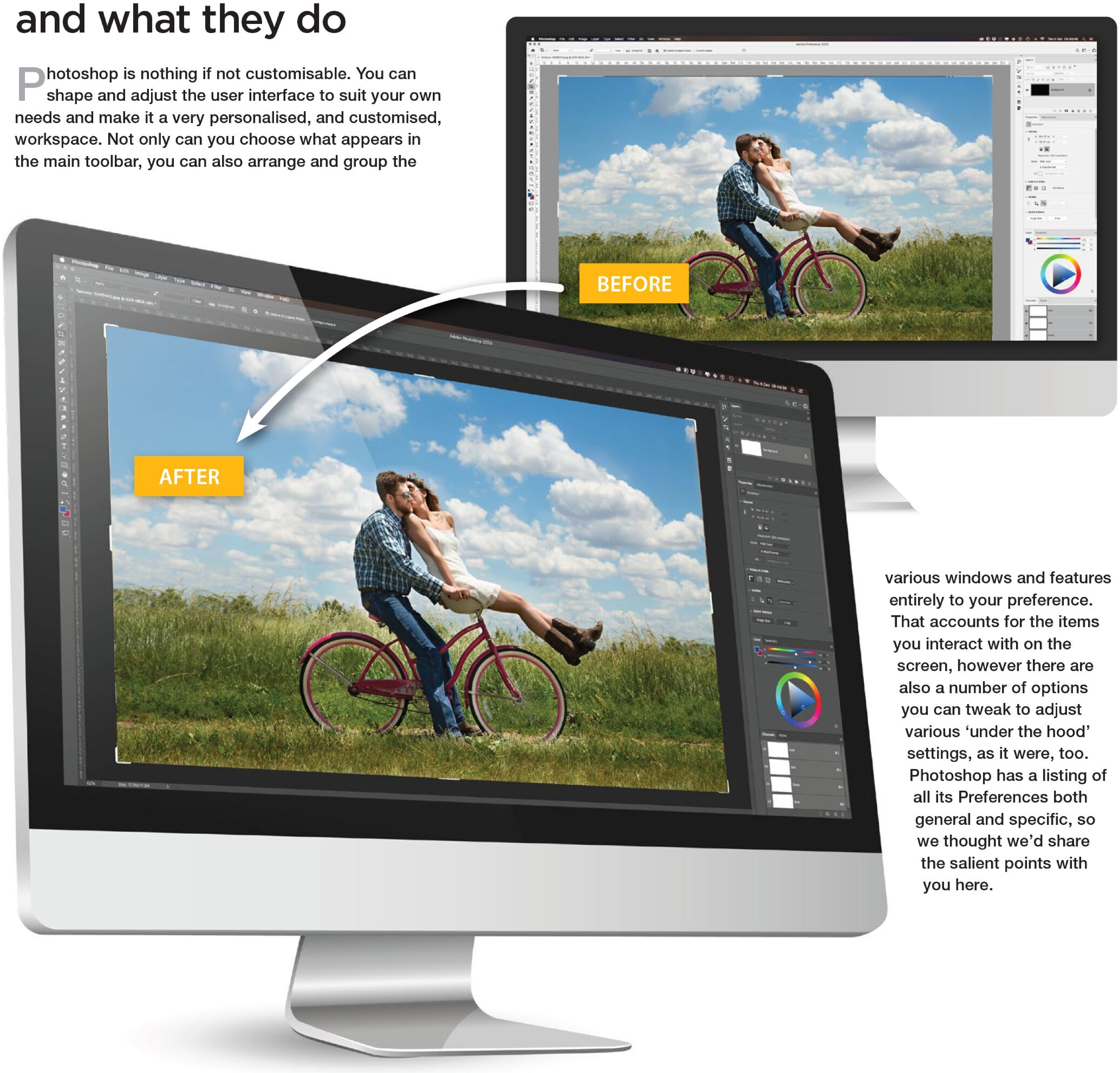
08 What interests us is the Apps button. Clicking on this calls up the Auto-Update window. Here, you can, not only turn on Auto-Update but also choose which of your installed apps will actually be updated. You can also make sure previous settings are applied to the update.

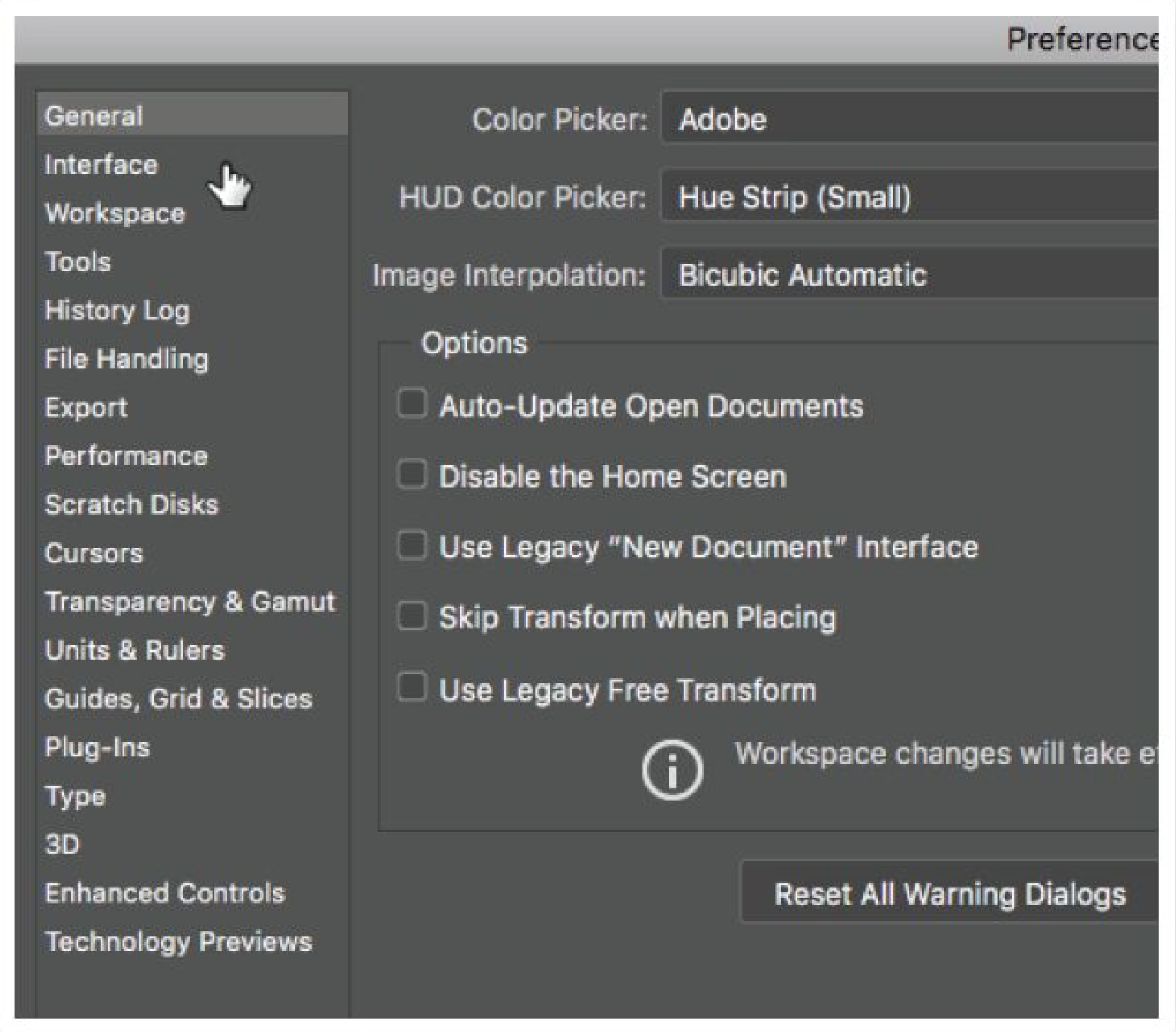
09 Now your apps will automatically be kept up to date as and when Adobe release new updates for them. Further down the page, you will see options for changing the default installation location and what the default language will be.

Photoshop Preferences Guide

Here are all the preferences and what they do

Photoshop is nothing if not customisable. You can shape and adjust the user interface to suit your own needs and make it a very personalised, and customised, workspace. Not only can you choose what appears in the main toolbar, you can also arrange and group the various windows and features entirely to your preference. That accounts for the items you interact with on the screen, however there are also a number of options you can tweak to adjust various 'under the hood' settings, as it were, too. Photoshop has a listing of all its Preferences both general and specific, so we thought we'd share the salient points with you here.

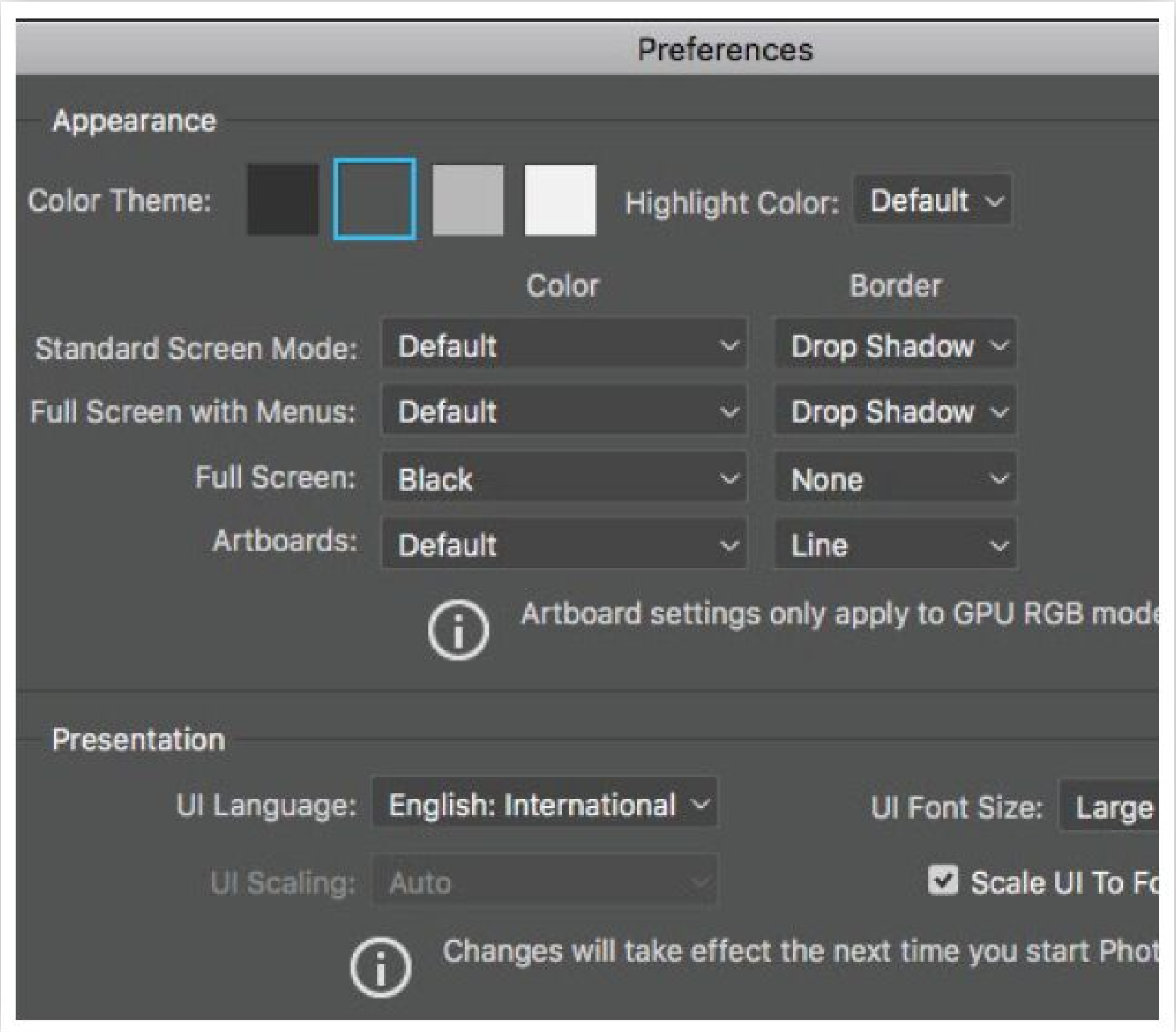



Preference
General
Interface
Workspace
Tools
History Log
File Handling
Export
Performance
Scratch Disks
Cursors
Transparency & Gamut
Units & Rulers
Guides, Grid & Slices
Plug-Ins
Type
3D
Enhanced Controls
Technology Previews
Reset All Warning Dialogs

Color Picker: Adobe
HUD Color Picker: Hue Strip (Small)
Image Interpolation: Bicubic Automatic

Options
☐ Auto-Update Open Documents
☐ Disable the Home Screen
☐ Use Legacy "New Document" Interface
☐ Skip Transform when Placing
☐ Use Legacy Free Transform
Workspace changes will take e

01 Under Photoshop CC > Preferences > General (Cmd + K) you will see the list of preferences available. The General preferences provide you with options to use some legacy features from older versions of Photoshop, Clipboard options, Smart Object creation and more.


Preferences

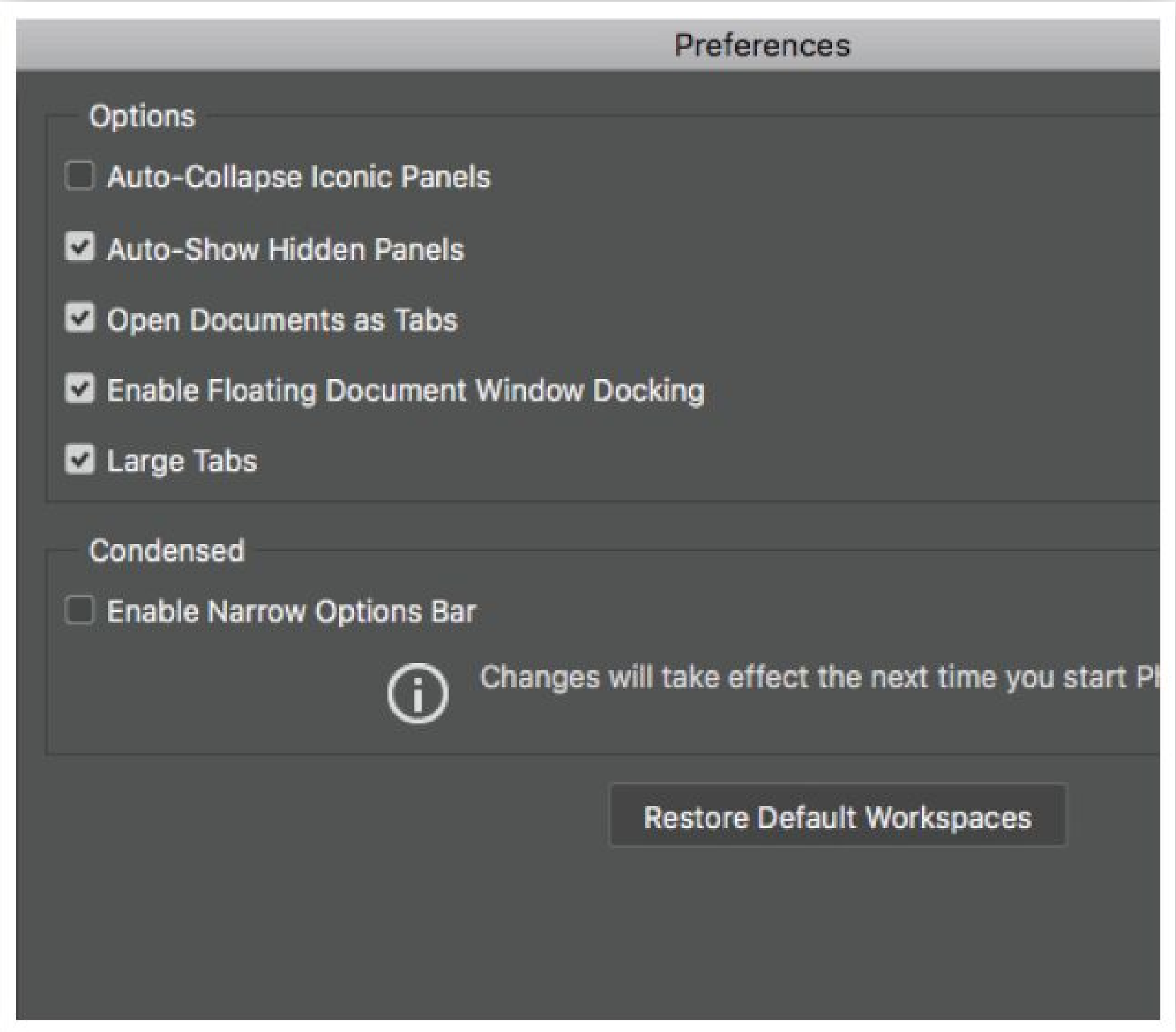
Appearance
Color Theme: Highlight Color: Default

	Color	Border
Standard Screen Mode:	Default	Drop Shadow
Full Screen with Menus:	Default	Drop Shadow
Full Screen:	Black	None
Artboards:	Default	Line

Artboard settings only apply to GPU RGB mode

Presentation
UI Language: English: International
UI Font Size: Large
UI Scaling: Auto
☑ Scale UI To F
Changes will take effect the next time you start Phot

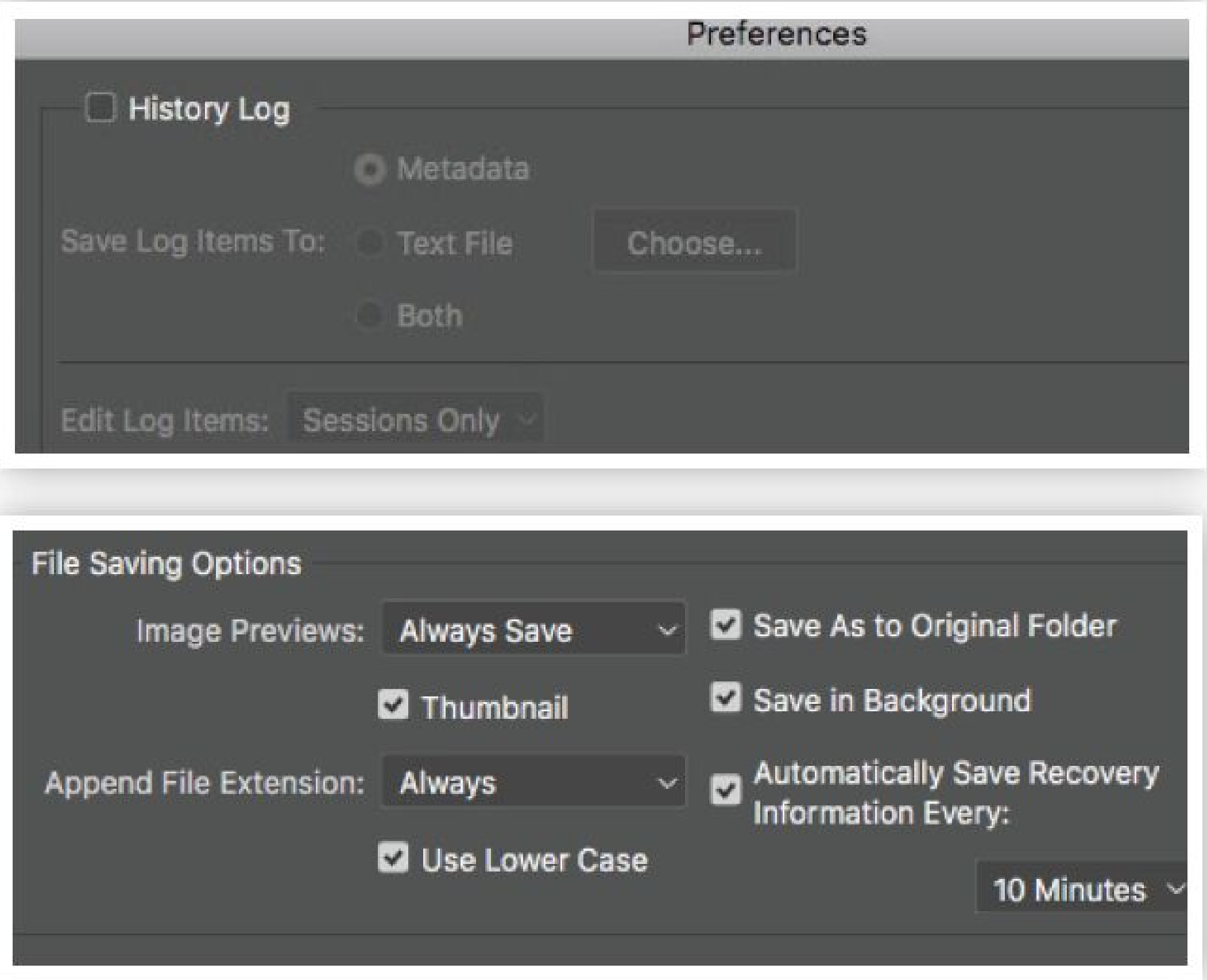
02 The next preference option is Interface. This is one you are likely to access more than most. This section primarily concerns itself with the appearance of your workspace. The main Colour Theme and the various colours employed by the screen modes are set here.


Preferences
Restore Default Workspaces

Options
☐ Auto-Collapse Iconic Panels
☑ Auto-Show Hidden Panels
☑ Open Documents as Tabs
☑ Enable Floating Document Window Docking
☑ Large Tabs

Condensed
☐ Enable Narrow Options Bar
Changes will take effect the next time you start P

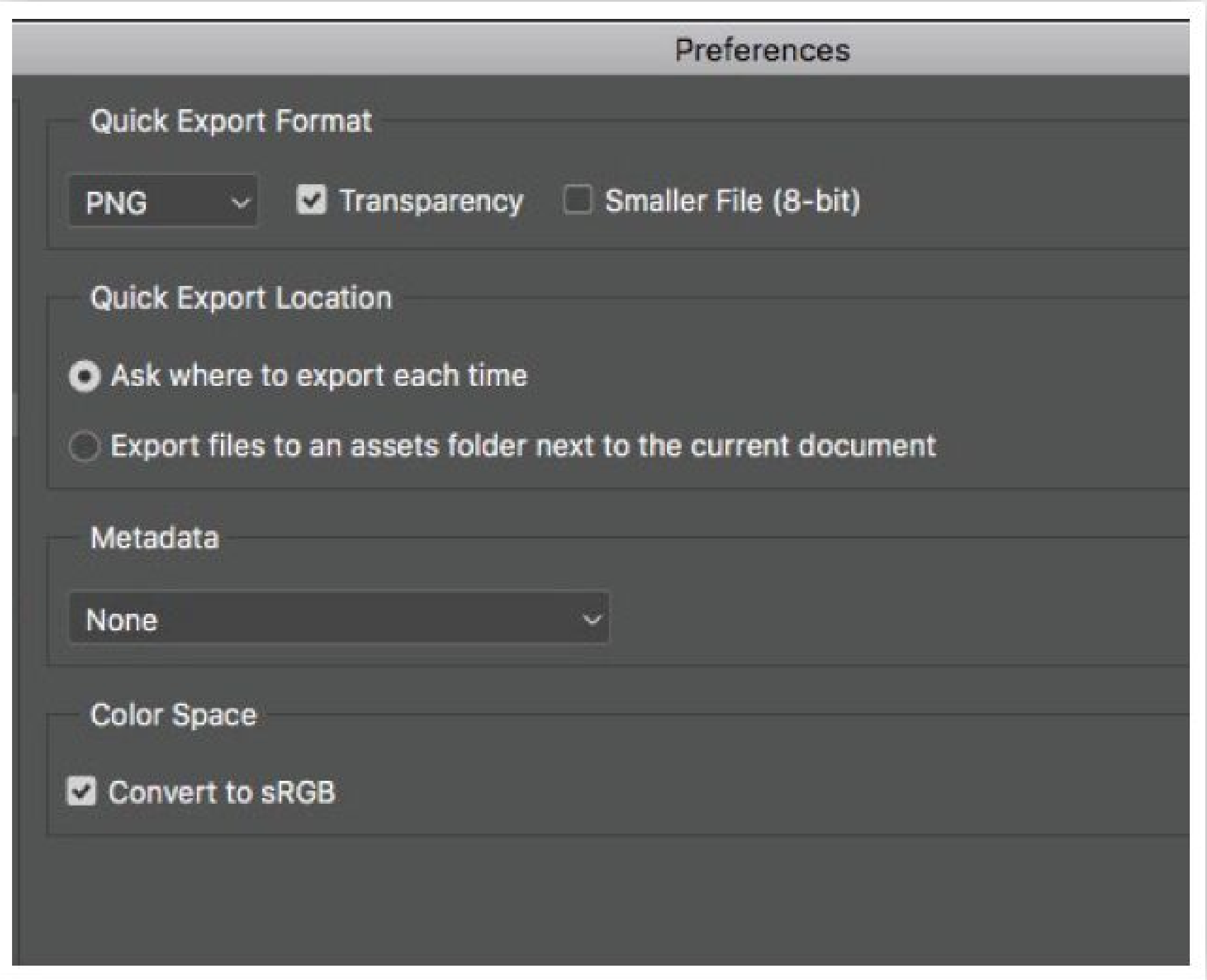
03 The Workspace presences are fairly simple and let you Auto-Show or Auto-Collapse panels as required without the need to manually open their properties. The Tools section below that allows the use of Tooltips and panning and zooming options can be turned on or off here.


Preferences
Choose...

☐ History Log
Save Log Items To: ● Metadata ○ Text File ○ Both
Edit Log Items: Sessions Only

File Saving Options
Image Previews: Always Save
☑ Thumbnail
Append File Extension: Always
☑ Use Lower Case
☑ Save As to Original Folder
☑ Save in Background
☑ Automatically Save Recovery Information Every: 10 Minutes

04 History Log lets track your actions in each Photoshop session and then save them out as a text file. File Handling offers a set of options to control the use of Image Previews and File Extensions. You can also adjust the File Compatibility options such as layered Tiff files.


Preferences

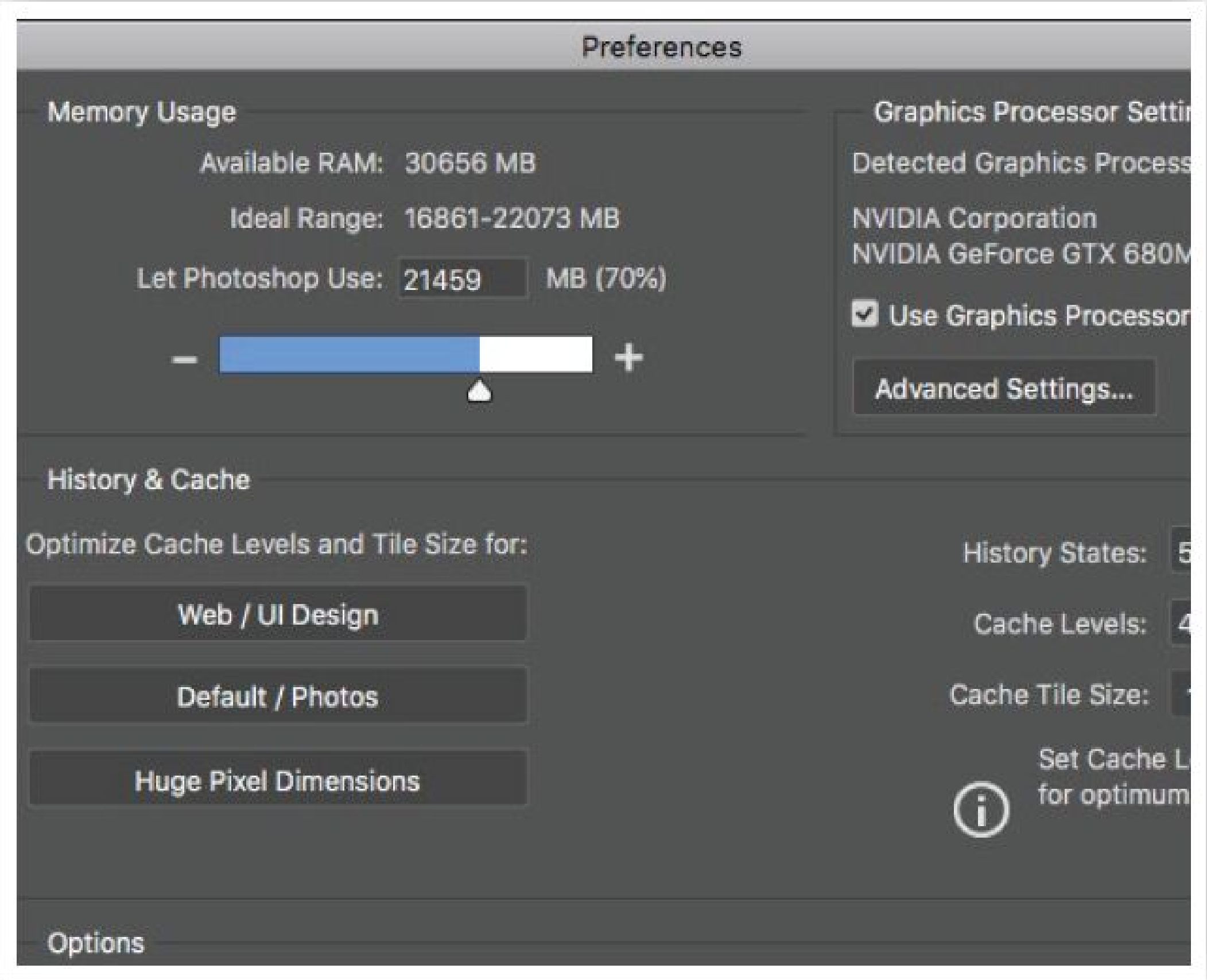
Quick Export Format
PNG ☑ Transparency ☐ Smaller File (8-bit)

Quick Export Location
● Ask where to export each time
○ Export files to an assets folder next to the current document

Metadata
None

Color Space
☑ Convert to sRGB

05 Export contains a few options that govern what format your images are if you choose to use the Quick Export function. You can also decide on a Quick Export Location, choose if any Metadata is appended to the image format and what Colour Space the image will be.

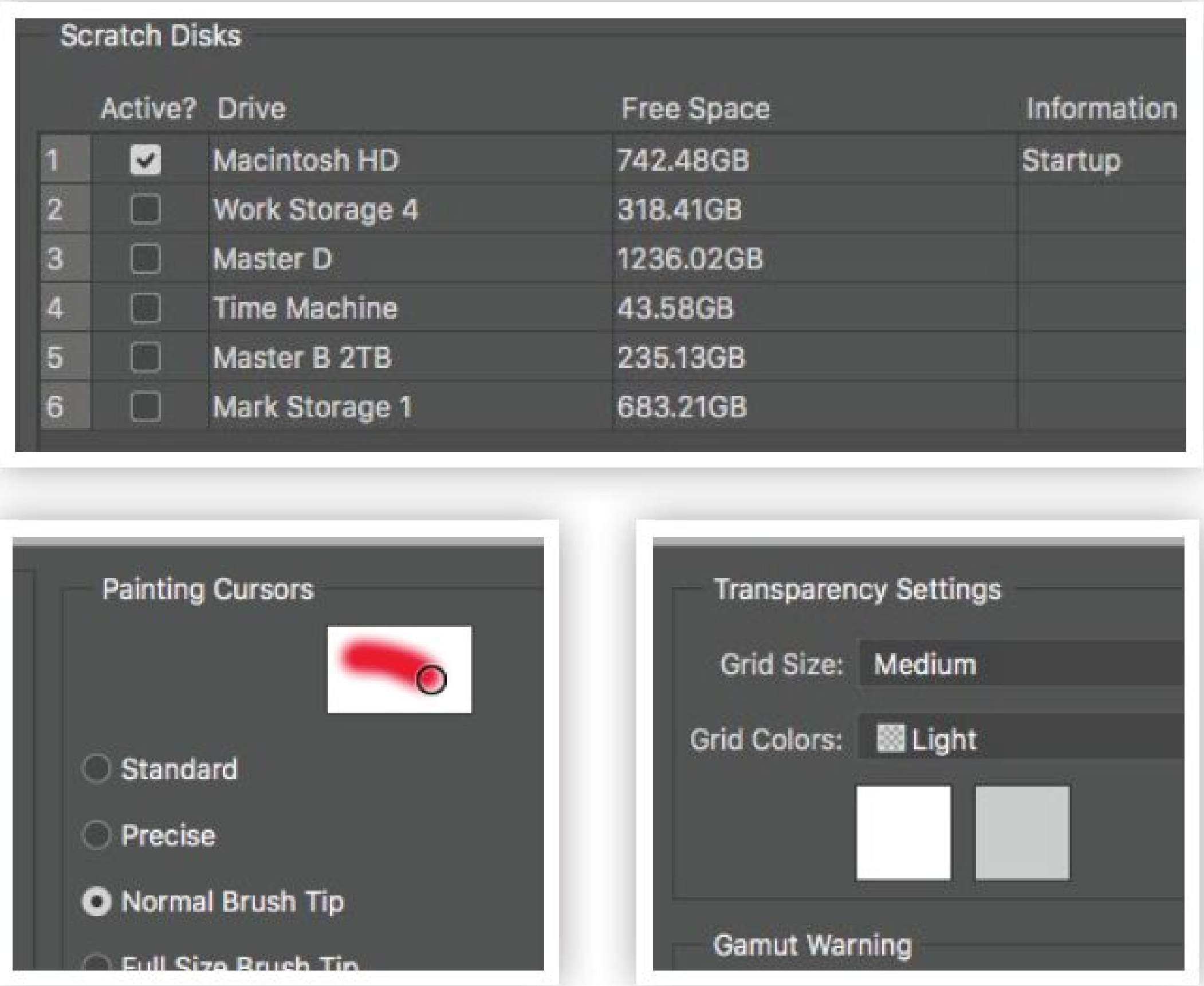

Preferences
Advanced Settings...
Web / UI Design
Default / Photos
Huge Pixel Dimensions
Options

Memory Usage
Available RAM: 30656 MB
Ideal Range: 16861-22073 MB
Let Photoshop Use: 21459 MB (70%)

Graphics Processor Setti
Detected Graphics Process
NVIDIA Corporation
NVIDIA GeForce GTX 680M
☑ Use Graphics Processor

History & Cache
Optimize Cache Levels and Tile Size for:
History States: 5
Cache Levels: 4
Cache Tile Size:
Set Cache L for optimum

06 Performance is a key area in which to spend some time as it will greatly speed up your work if set up correctly. Here you can control how much RAM Photoshop uses and, if your graphics card is compatible, to allow the use of advanced Graphics Processor Settings.



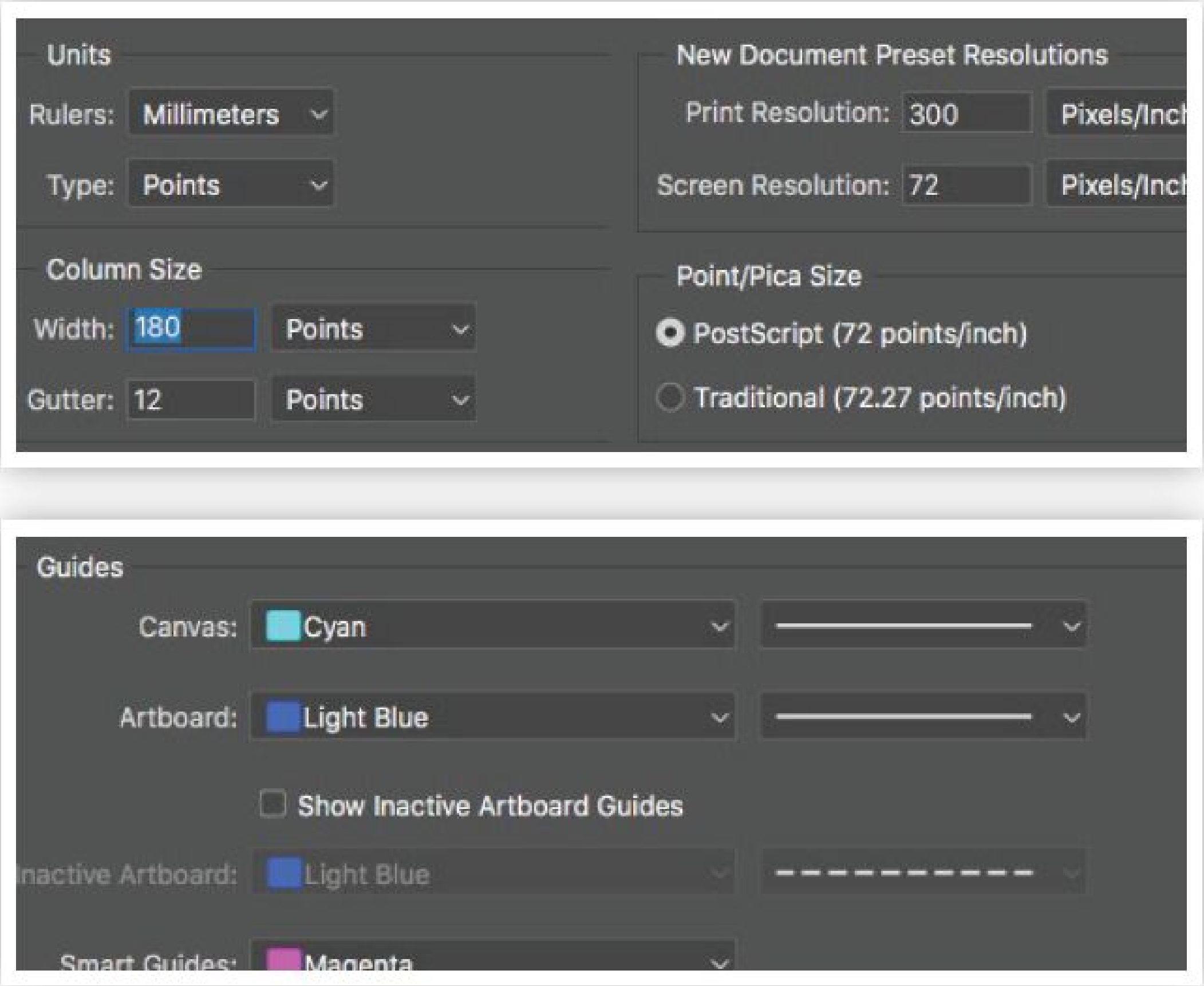
Scratch Disks

	Active?	Drive	Free Space	Information
1	☑	Macintosh HD	742.48GB	Startup
2	☐	Work Storage 4	318.41GB	
3	☐	Master D	1236.02GB	
4	☐	Time Machine	43.58GB	
5	☐	Master B 2TB	235.13GB	
6	☐	Mark Storage 1	683.21GB	

Painting Cursors
○ Standard
○ Precise
● Normal Brush Tip
○ Full Size Brush Tip

Transparency Settings
Grid Size: Medium
Grid Colors: Light
Gamut Warning

07 Scratch Disks lets you use hard drive storage as virtual RAM, whilst Cursors lets you specify the precision, size and shape of the Brush Tip. Transparency and Gamut govern the transparent, background grid size and in what colour a Gamut warning will appear.



Units
Rulers: Millimeters
Type: Points

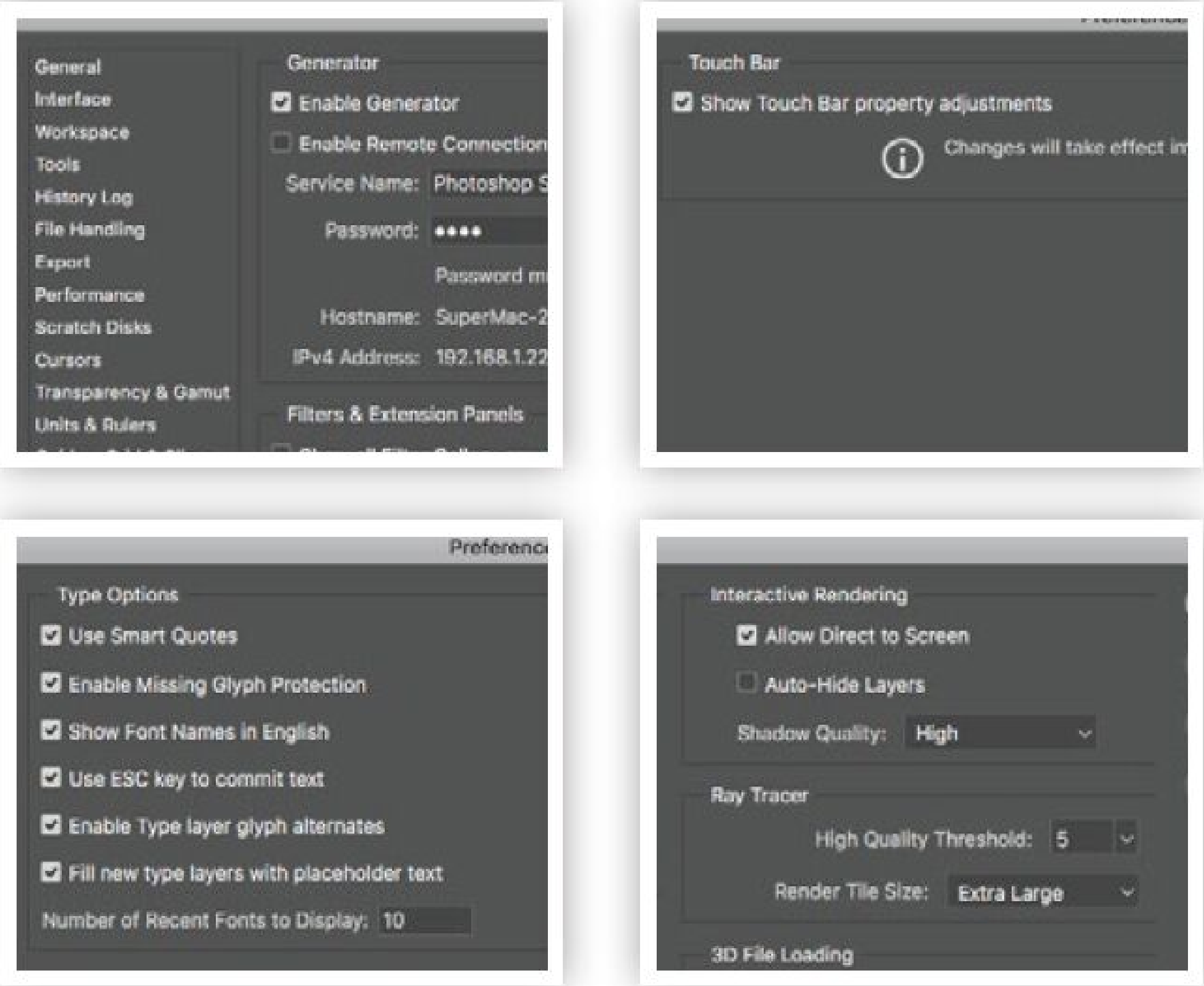
Column Size
Width: 180 Points
Gutter: 12 Points

New Document Preset Resolutions
Print Resolution: 300 Pixels/Inch
Screen Resolution: 72 Pixels/Inch

Point/Pica Size
● PostScript (72 points/inch)
○ Traditional (72.27 points/inch)

Guides
Canvas: Cyan
Artboard: Light Blue
☐ Show Inactive Artboard Guides
Inactive Artboard: Light Blue
Smart Guides: Magenta

08 Units & Rulers is fairly self-explanatory with options for in which units of measurement your Rulers and Type sizes appear. Grids, Grid & Slices is a useful set of options when you need precise grids added to your document in terms of colour and grid line frequency.


General
Interface
Workspace
Tools
History Log
File Handling
Export
Performance
Scratch Disks
Cursors
Transparency & Gamut
Units & Rulers
Filters & Extension Panels
Preferences

Generator
☑ Enable Generator
☐ Enable Remote Connection
Service Name: Photoshop S
Password: ••••
Hostname: SuperMac-2
IPv4 Address: 192.168.1.22

Touch Bar
☑ Show Touch Bar property adjustments
Changes will take effect in

Type Options
☑ Use Smart Quotes
☑ Enable Missing Glyph Protection
☑ Show Font Names in English
☑ Use ESC key to commit text
☑ Enable Type layer glyph alternates
☑ Fill new type layers with placeholder text
Number of Recent Fonts to Display: 10

Interactive Rendering
☑ Allow Direct to Screen
☐ Auto-Hide Layers
Shadow Quality: High

Ray Tracer
High Quality Threshold: 5
Render Tile Size: Extra Large

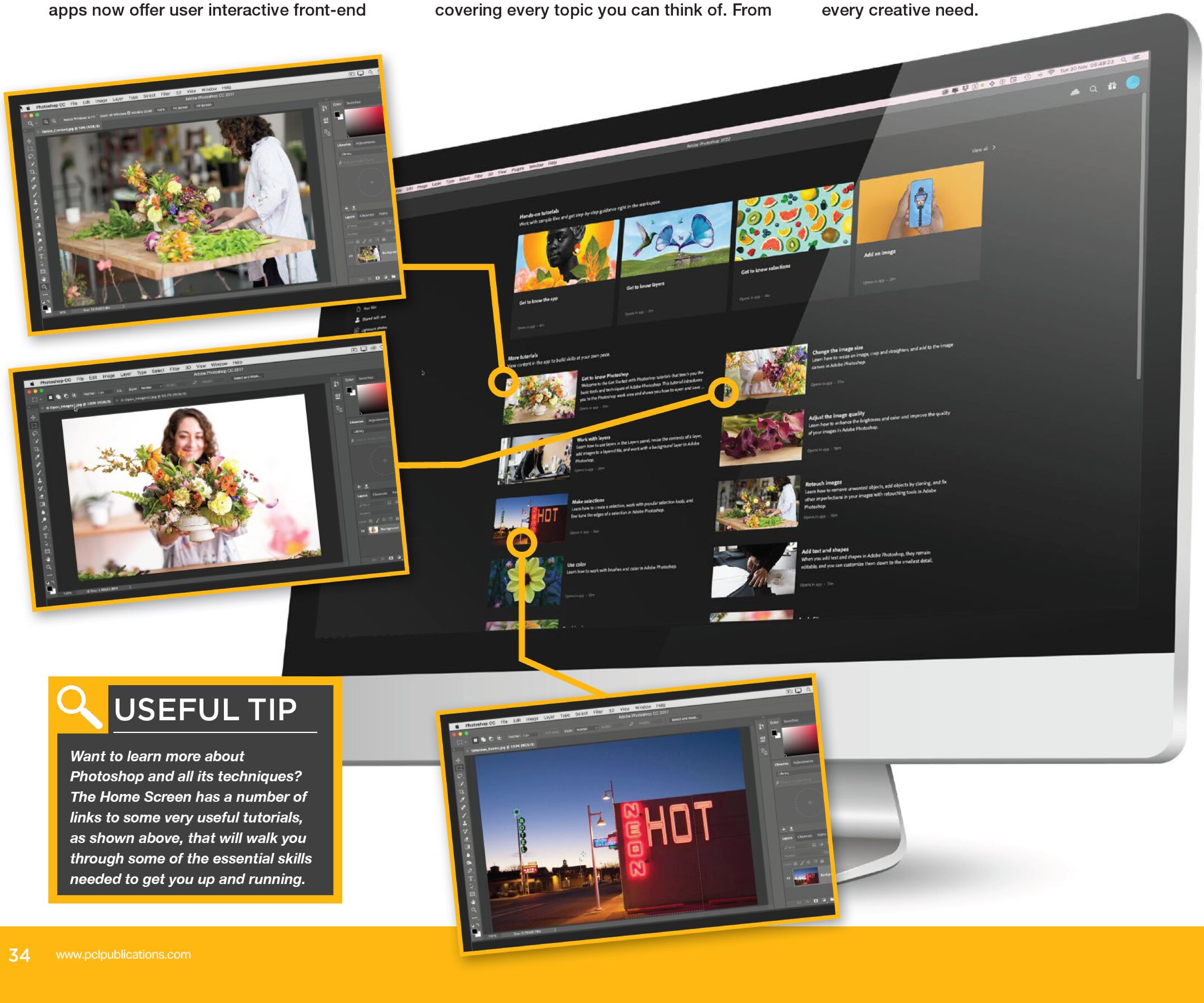
3D File Loading

09 You can control the use of Plug-Ins and Type Options in the next two preference sections. Then there is the 3D section where you can set VRAM usage, 3D Overlays and Interactive Rendering. Enhanced Controls for Touch Bar and Technology Previews round out the list.

The Photoshop Home Screen

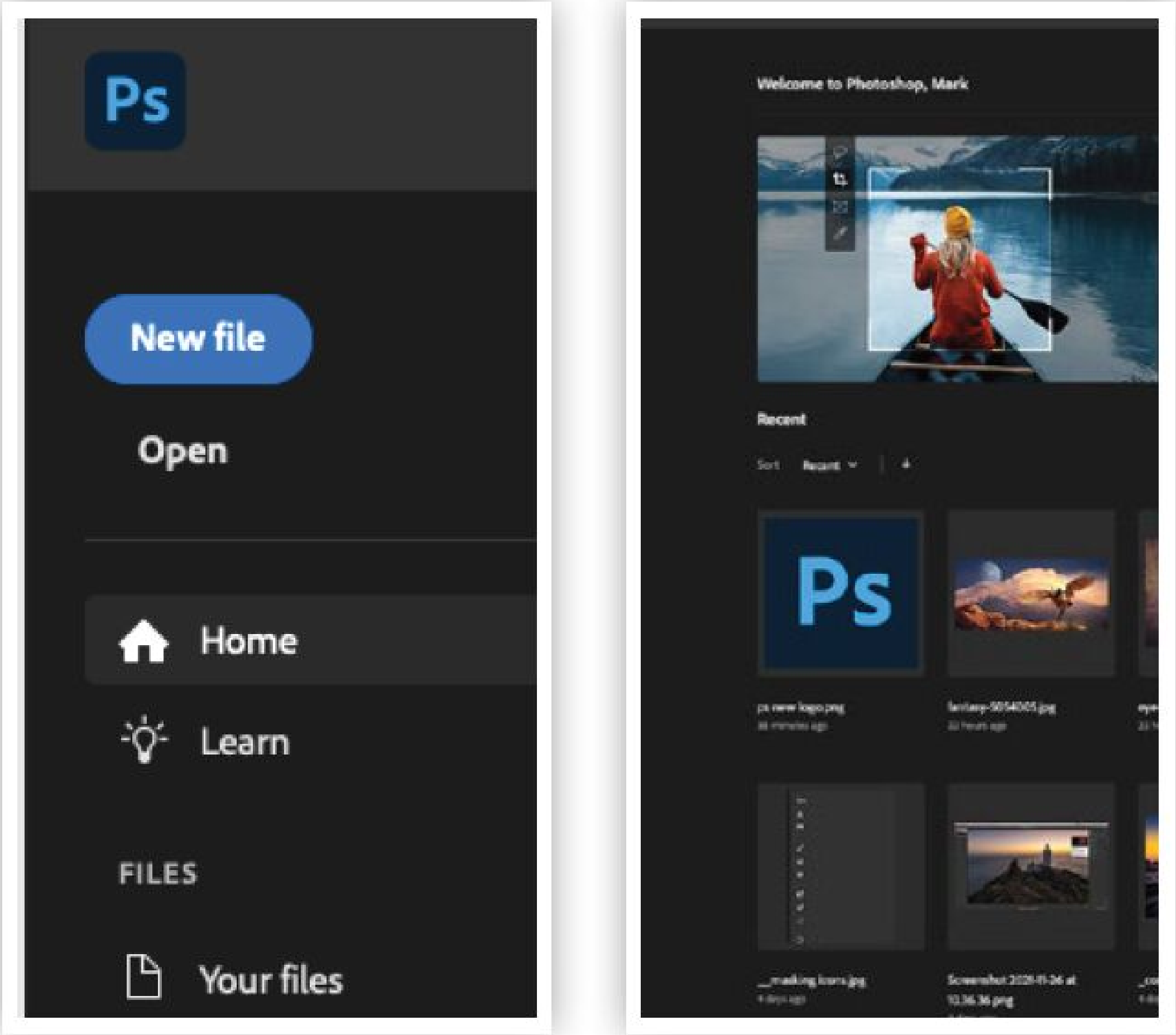
We show you what the Photoshop user front end has on offer in the latest versions

In the good old days of Photoshop CS, you had a product that you opened up and simply started using with nothing else getting in the way. These days that is no longer the case. The Adobe Creative Cloud series of apps now offer user interactive front-end environments that are more than just a list of recently opened files. Now you can browse and sort those files and display them in thumbnail or list form. That's not all, you also have access to Adobe's online web tutorials covering every topic you can think of. From basic videos on getting started with layers and cutting out images, to more advanced topics, you have a library of knowledge at your beck and call. Even creating a new document has a huge wealth of choice for every creative need.

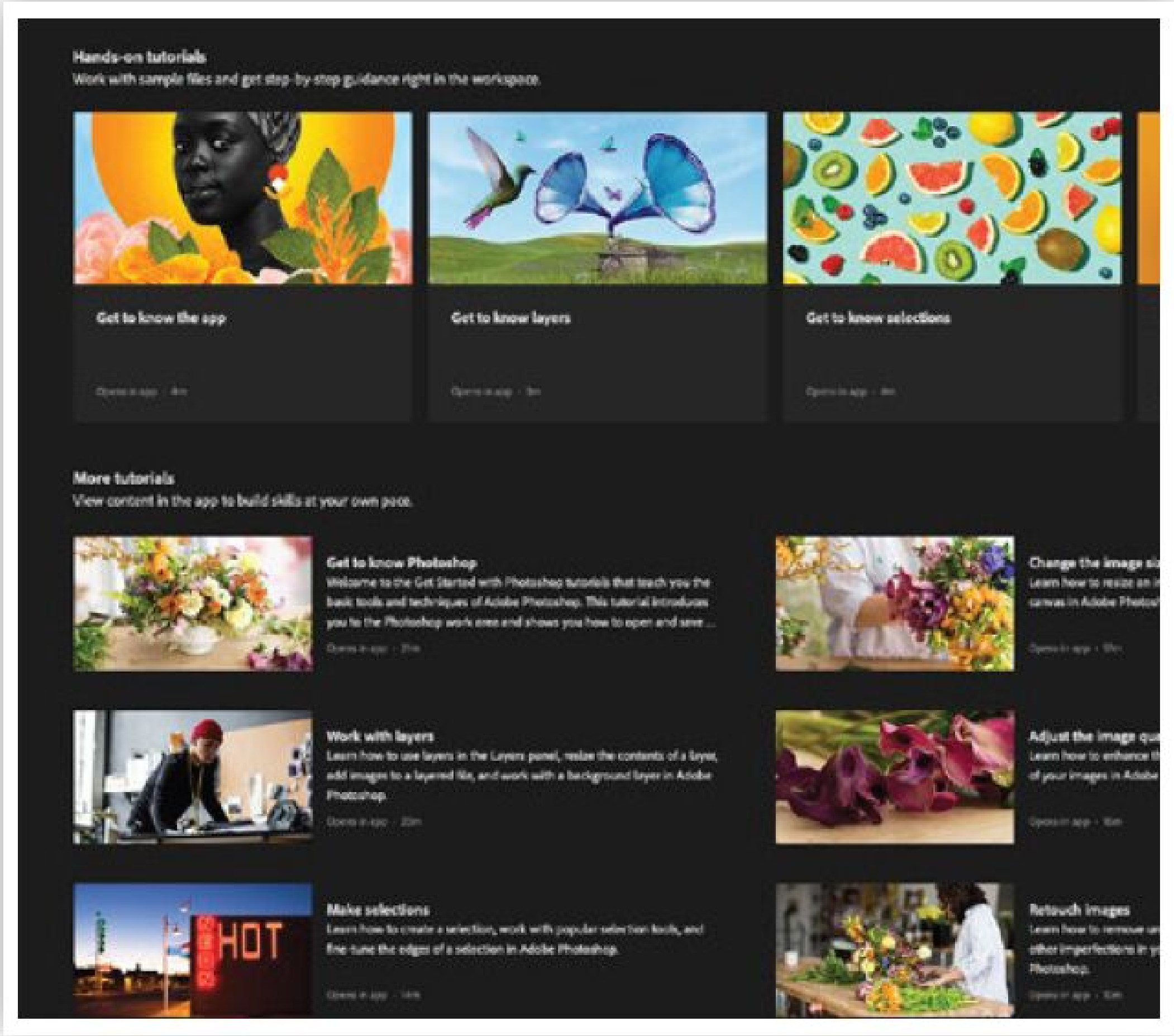

Hands-on tutorials
Get to know the app
Get to know layers
Get to know selections
Add an image
More tutorials
Get to know Photoshop
Change the image size
Adjust the image quality
Work with layers
Retouch images
Make selections
Add text and shapes
Use color

USEFUL TIP

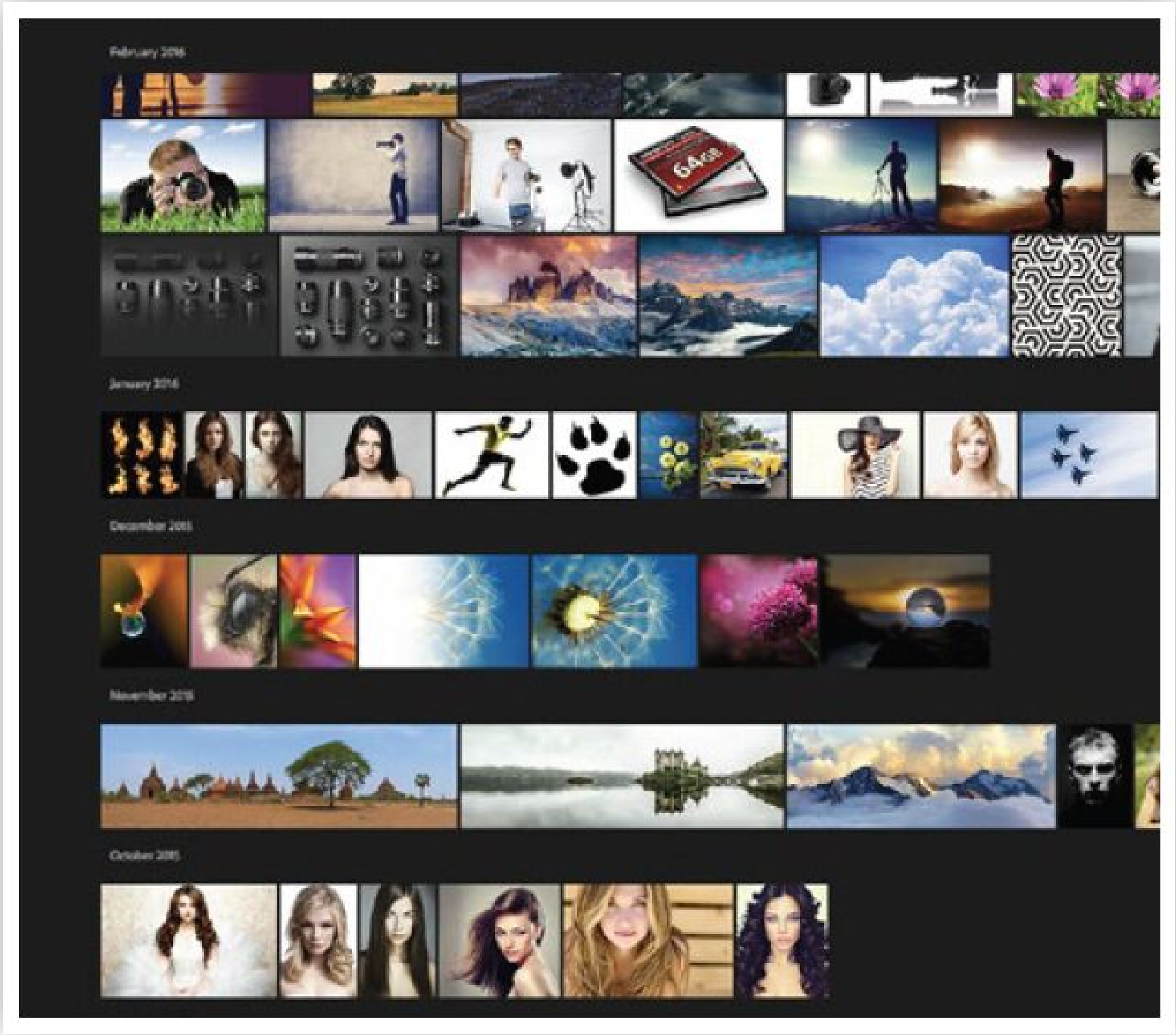
Want to learn more about Photoshop and all its techniques? The Home Screen has a number of links to some very useful tutorials, as shown above, that will walk you through some of the essential skills needed to get you up and running.


Ps
New file
Open
Home
Learn
FILES
Your files
Welcome to Photoshop, Mark
Recent

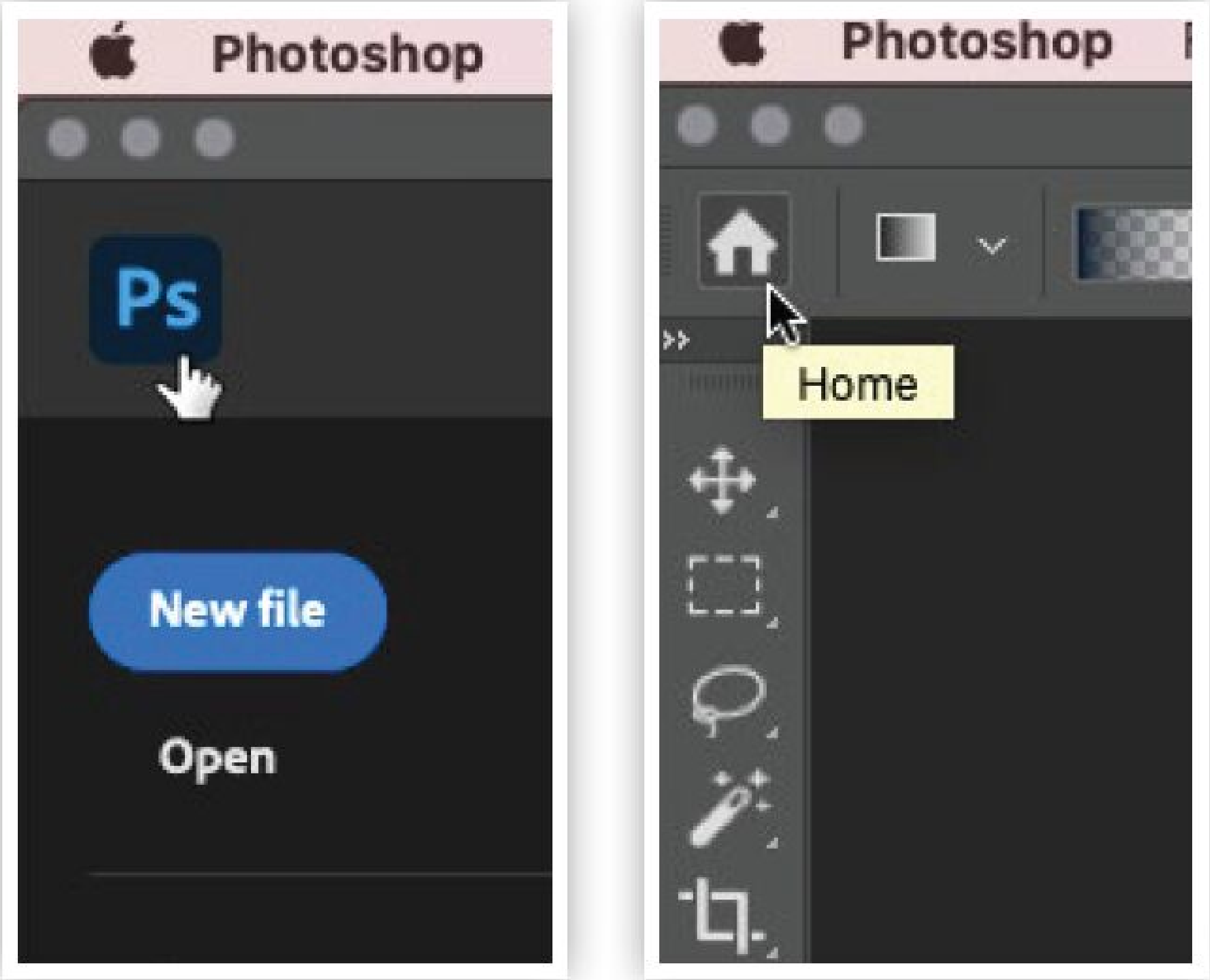
01 When you open Photoshop, rather than just going direct to the workspace, you are first presented with the Adobe Photoshop CC Home screen. The main part of the window concerns itself with the display of your Recent files in ascending or descending order.


Hands-on tutorials
Get to know the app
Get to know layers
Get to know selections
More tutorials

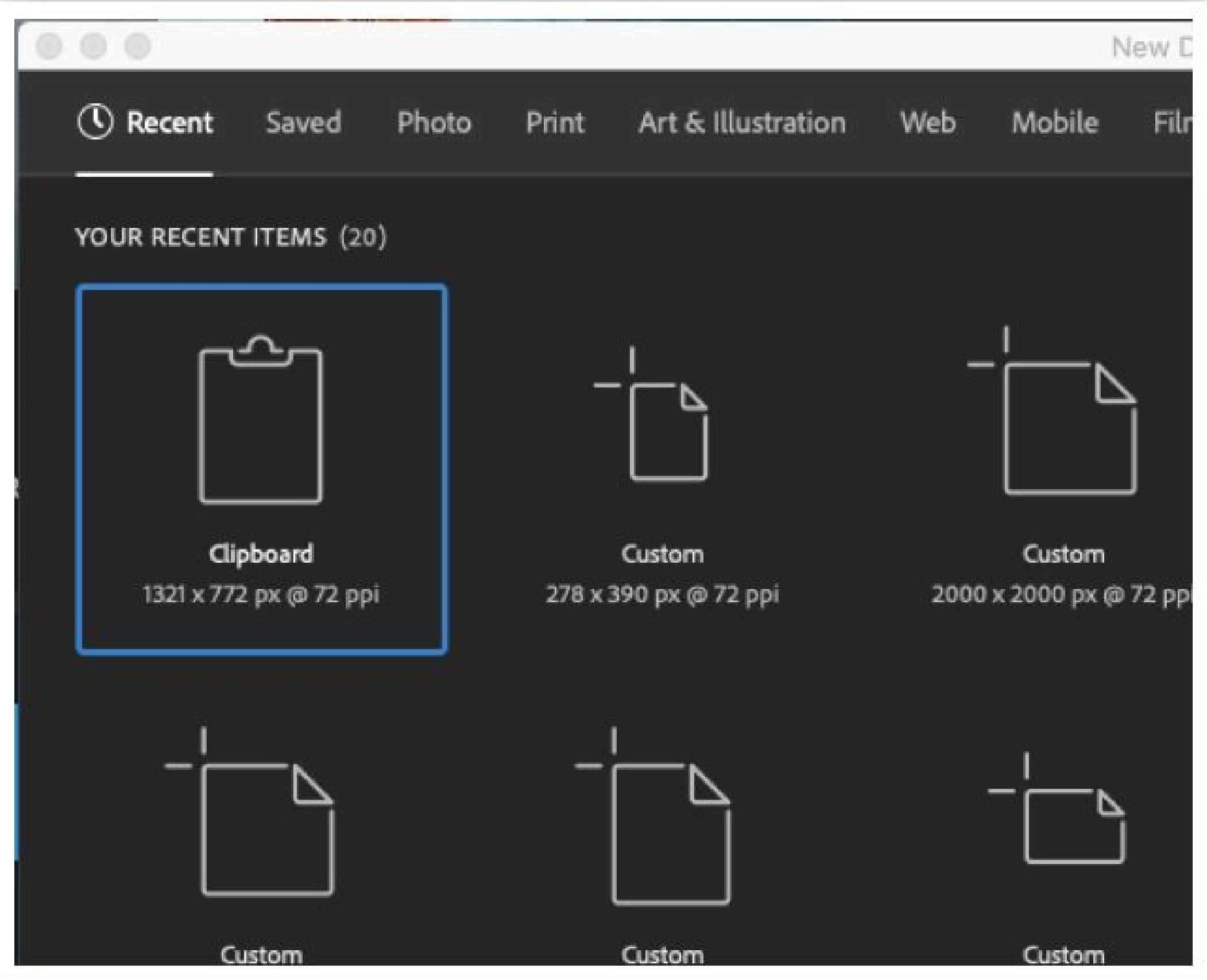
02 In the top left of the screen you can click on the menu items. Home is active by default, but you can click on the Learn button to display a page of available tutorials from which you can choose. At the bottom, there is the option to go to Adobe.com for even more.



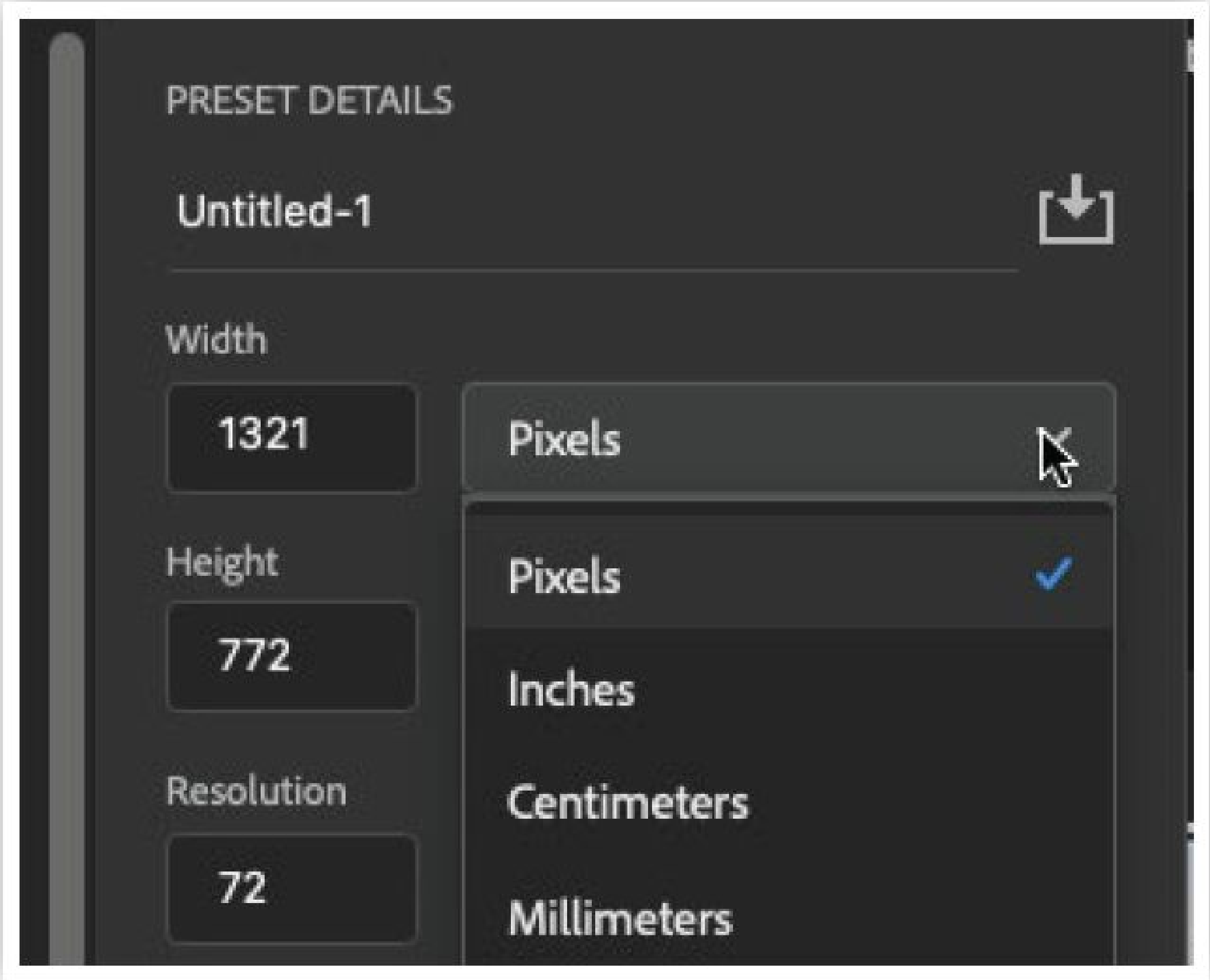
03 Below the Learn option is LR Photos. When you click on this option, it displays a page of your Lightroom images that are stored online. View them and choose which ones you would like to select for import. They will then download and open in Photoshop.


Photoshop
Ps
New file
Open
Photoshop
Home

04 For your reference, in the top left corner is the PS icon. If you click on that, it will open the Photoshop workspace, but no images will be opened. You can start your workflow if needs be, or you can click on the Home button to return to the Home screen once more.


Recent
Saved
Photo
Print
Art & Illustration
Web
Mobile
YOUR RECENT ITEMS (20)
Clipboard
1321 x 772 px @ 72 ppi
Custom
278 x 390 px @ 72 ppi
Custom
2000 x 2000 px @ 72 ppi
Custom
Custom
Custom

05 The next option on the left of the Home screen is Create New. When you click on this button the New Document screen will appear. The first screen will list Recent items and the document sizes available will reflect image sizes you've used in the past.



PRESET DETAILS

Untitled-1

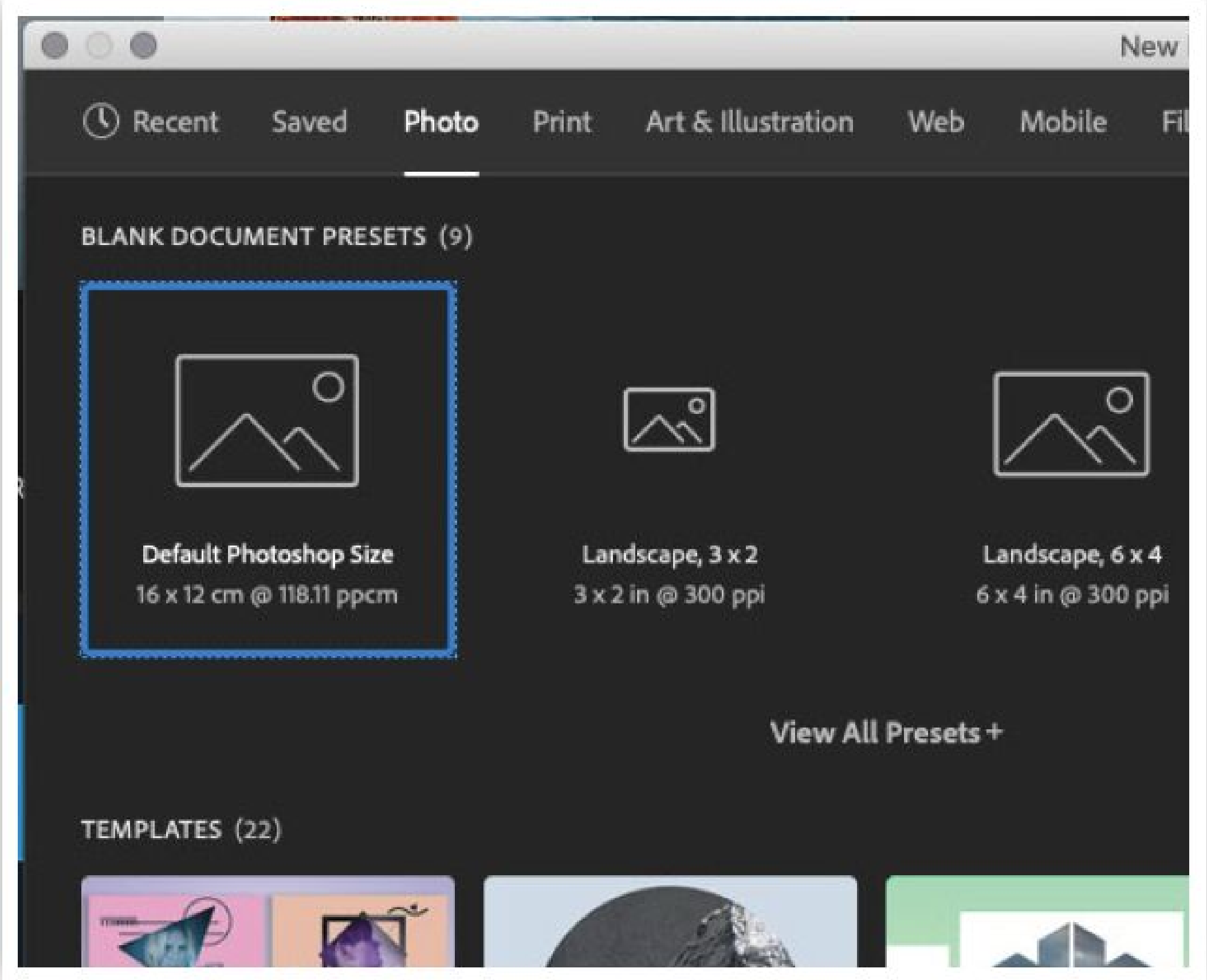
Width: 1321 Pixels

Height: 772

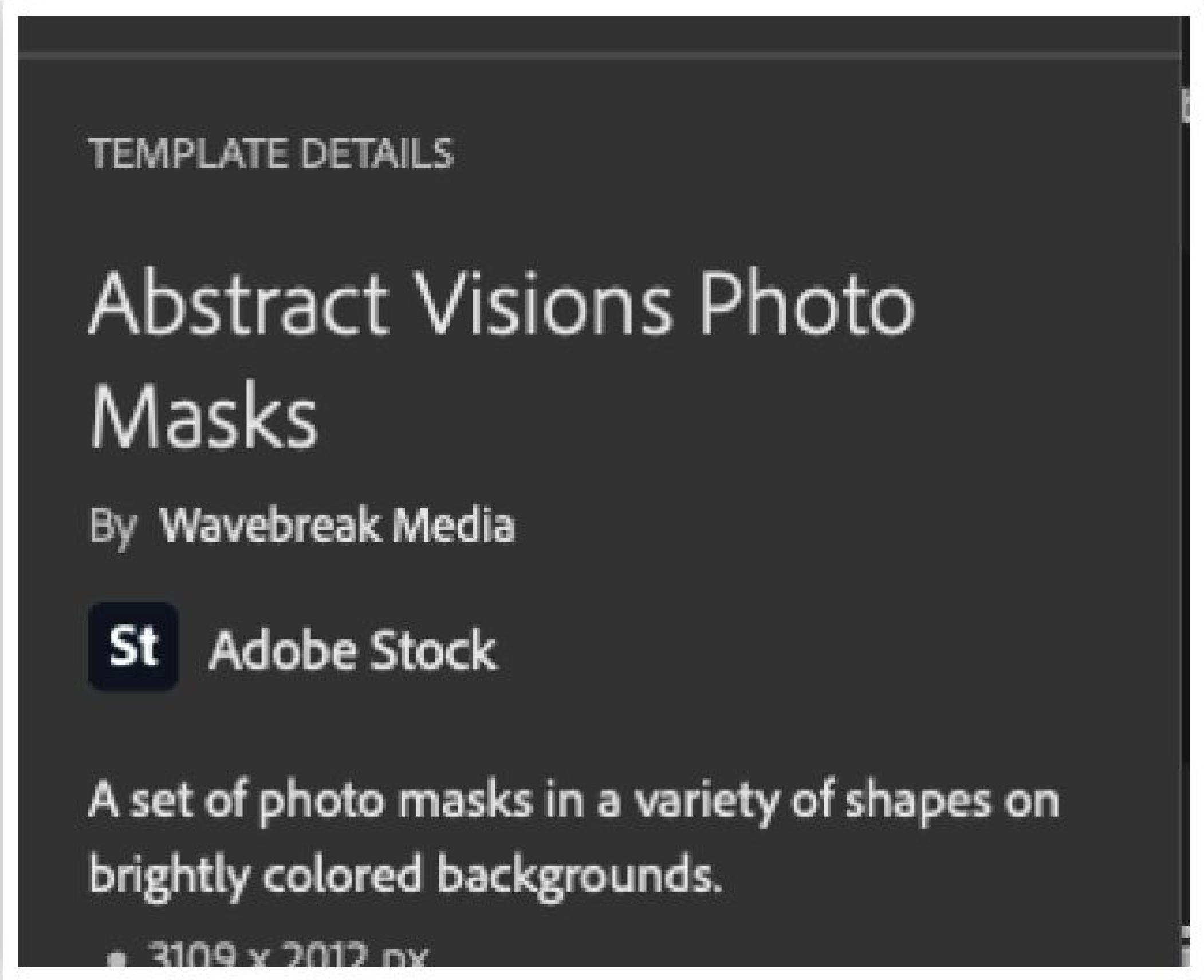
Resolution: 72

Pixels
Inches
Centimeters
Millimeters

06 You can input your own dimensions in the Width and Height fields and choose a unit of measurement for your new document. You can select the Orientation, Resolution, Color Mode and even Pixel Aspect Ratio. Then click Create to open the document and start working.


Recent
Saved
Photo
Print
Art & Illustration
Web
Mobile
BLANK DOCUMENT PRESETS (9)
Default Photoshop Size
16 x 12 cm @ 118.11 ppcm
Landscape, 3 x 2
3 x 2 in @ 300 ppi
Landscape, 6 x 4
6 x 4 in @ 300 ppi
View All Presets +
TEMPLATES (22)

07 Across the top of the New Document window, you will see a number of Blank Document Presets from which you can choose. First is any you have saved yourself, then there are the Photo presets. These are a range of standard photo print sizes such as 7 x 5 in @ 300ppi.



TEMPLATE DETAILS

Abstract Visions Photo Masks

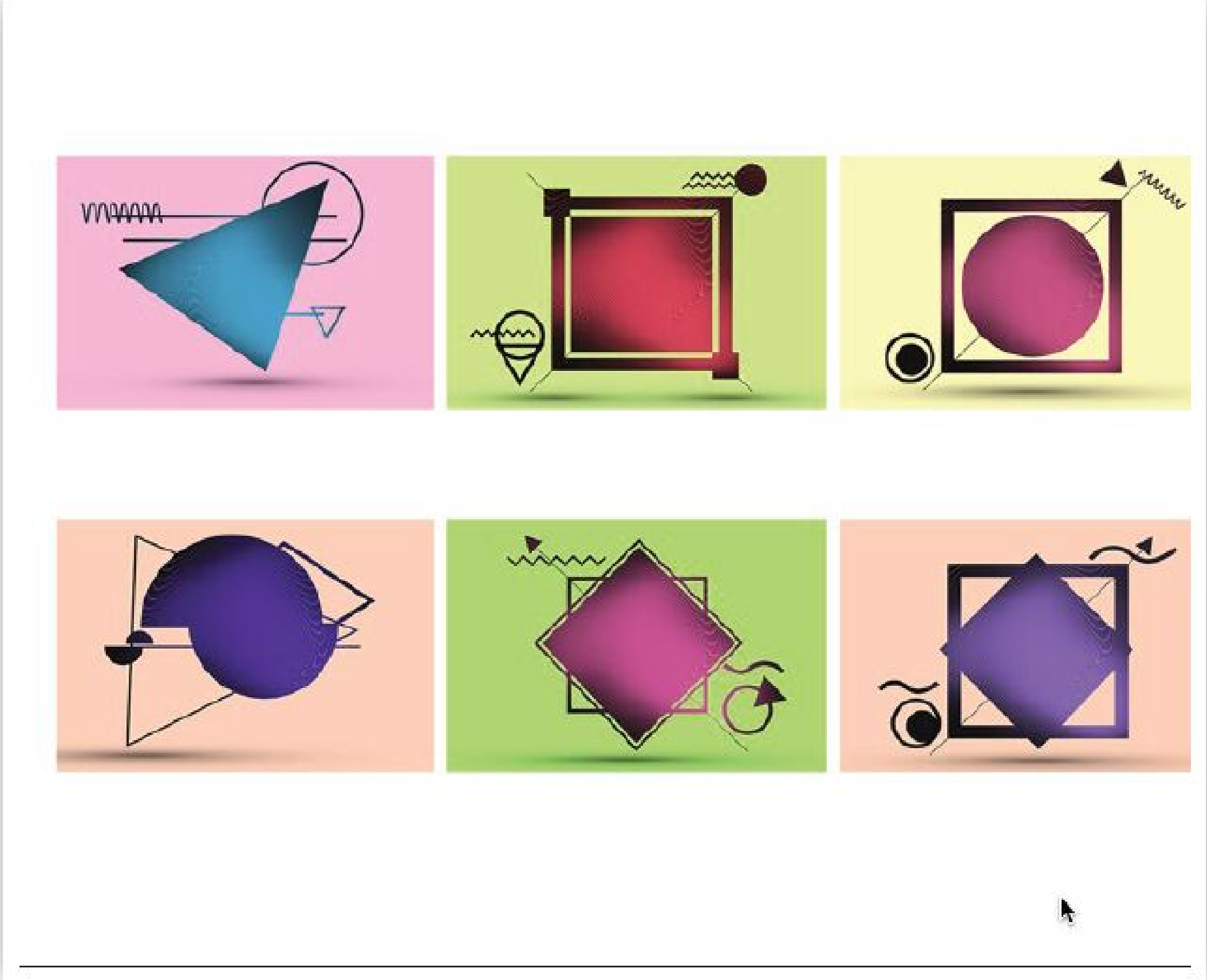
By Wavebreak Media

St Adobe Stock

A set of photo masks in a variety of shapes on brightly colored backgrounds.

3109 x 2012 px

08 Below the Presets are a number of masking Templates, provided free by Adobe, for you to use. They range from Gallery Frames to Collage Layouts. When you click on any of the templates, you will see a set of details listed to the right of the New Document window.

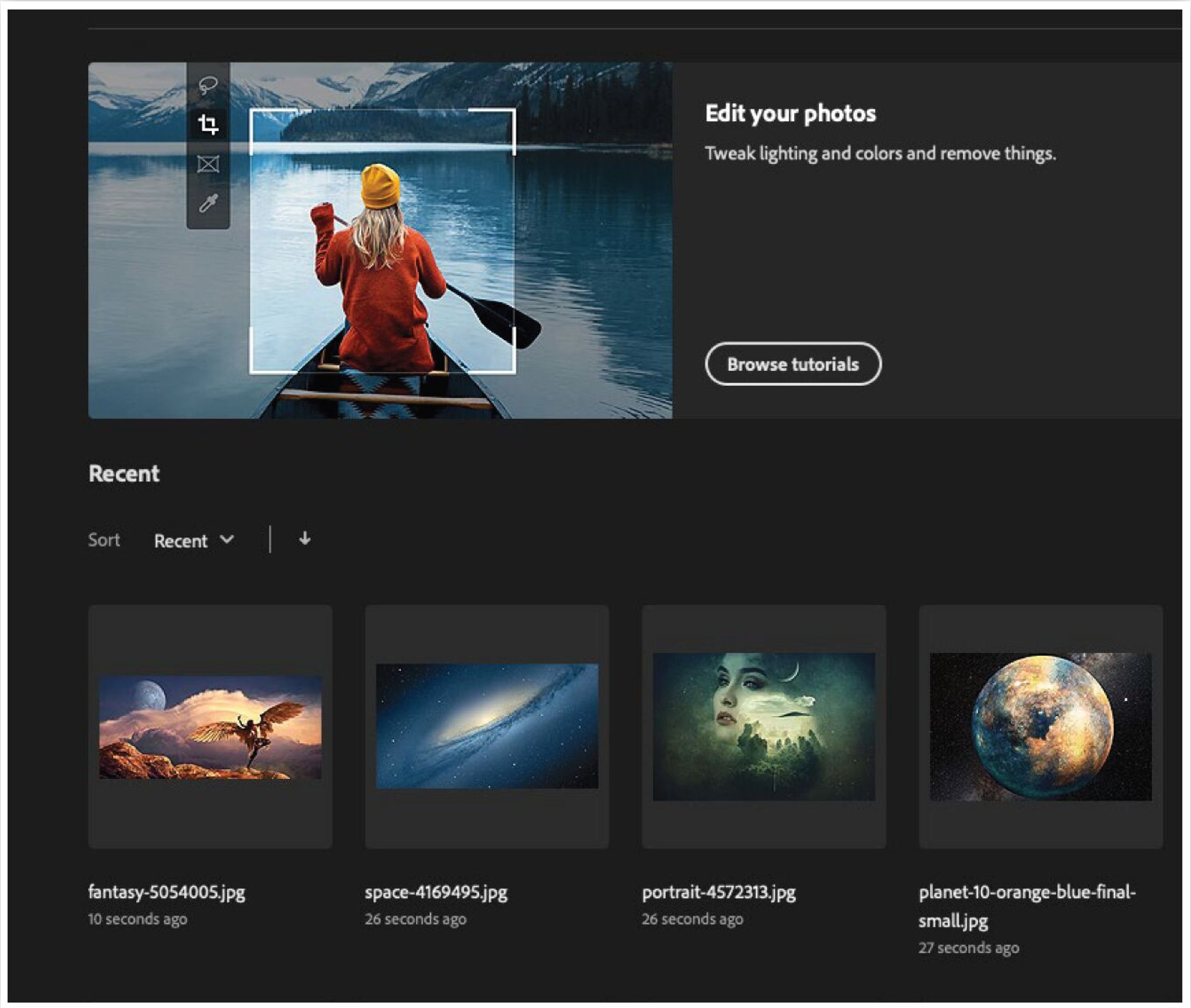


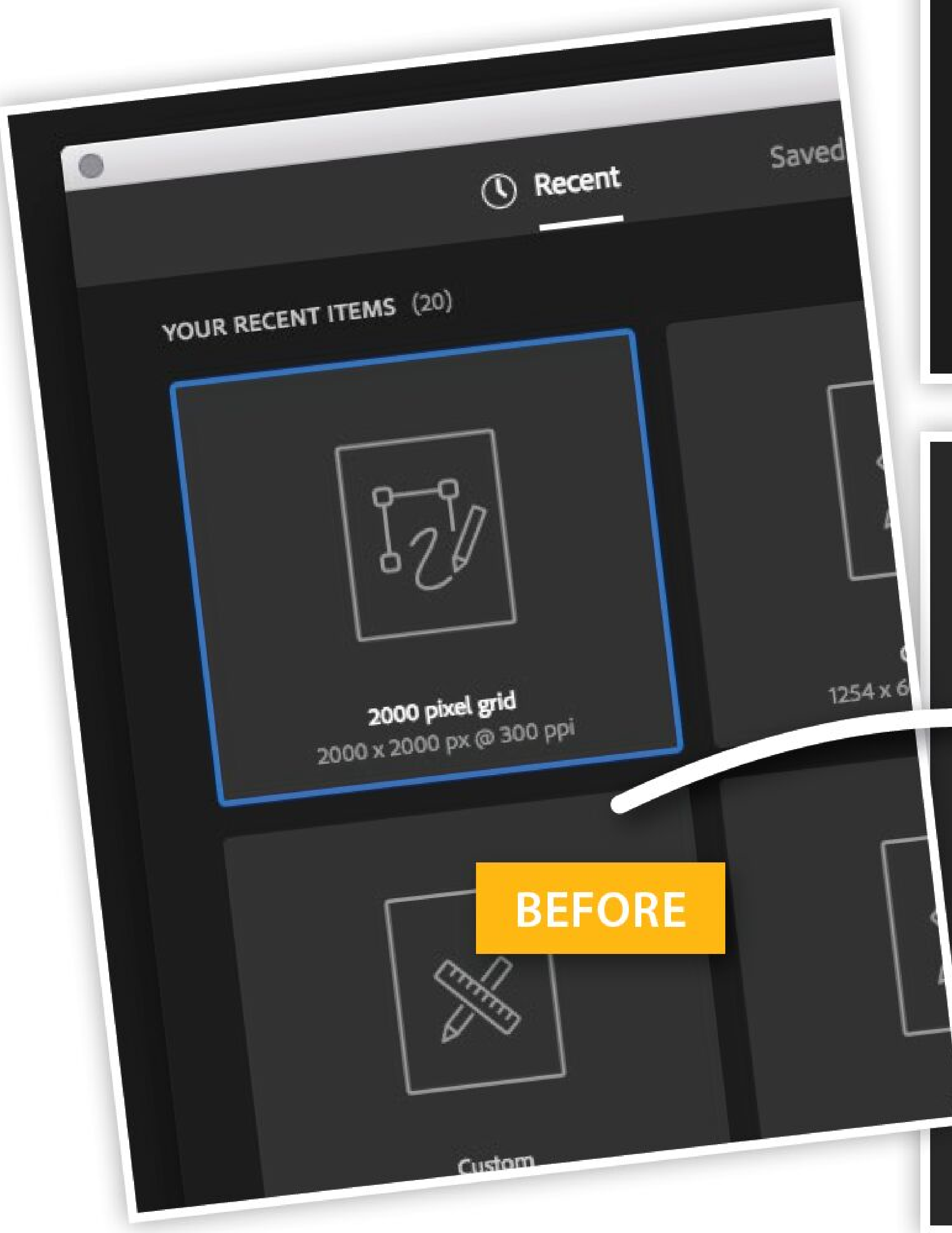
09 If you click the See Preview button, you can look at the templates in more detail prior to deciding if you want to download it or not. There are also Presets and making Templates for Print, Art & Illustration, Web, Mobile and Film & Video.

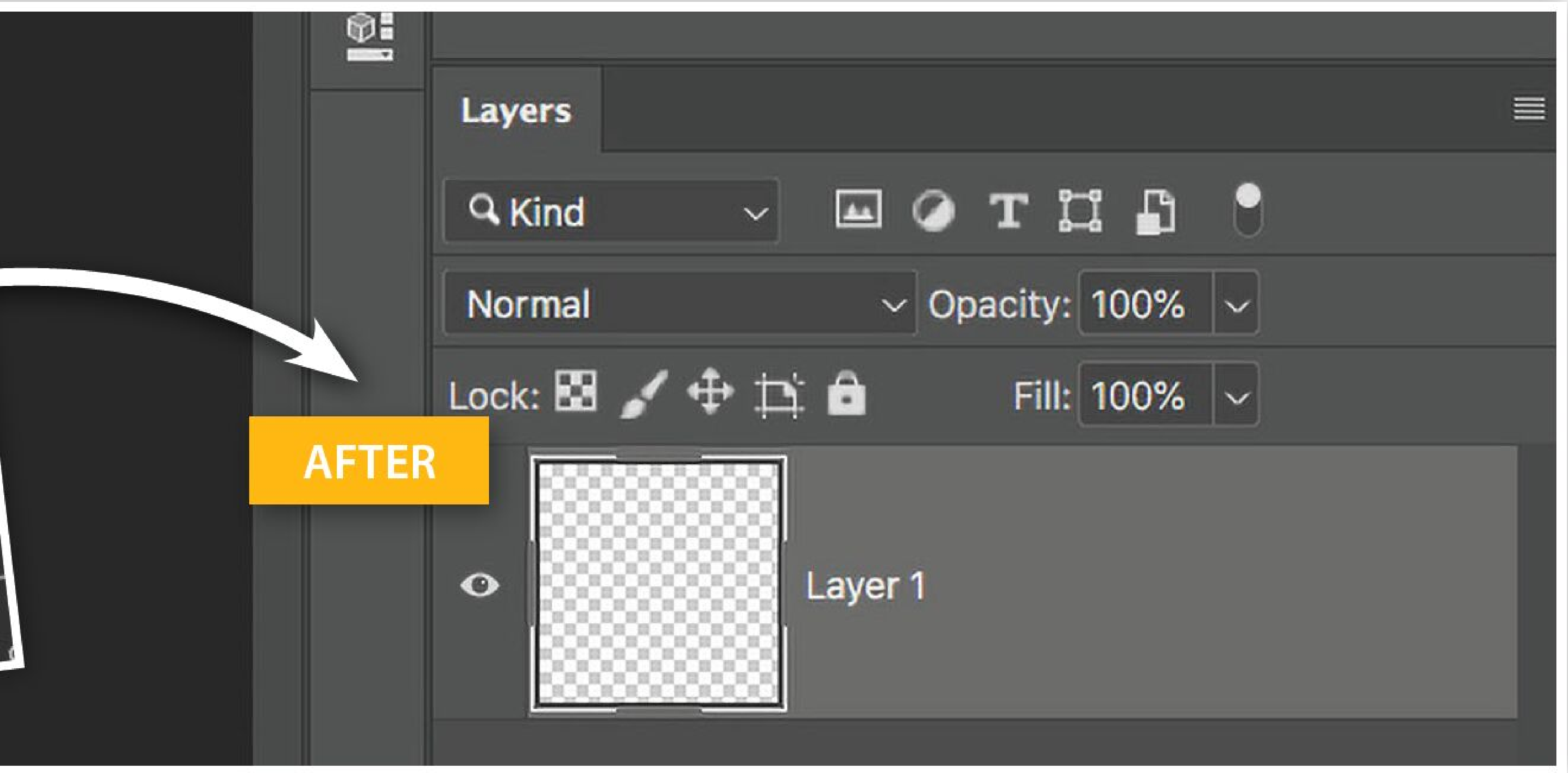
Your First PSD Document

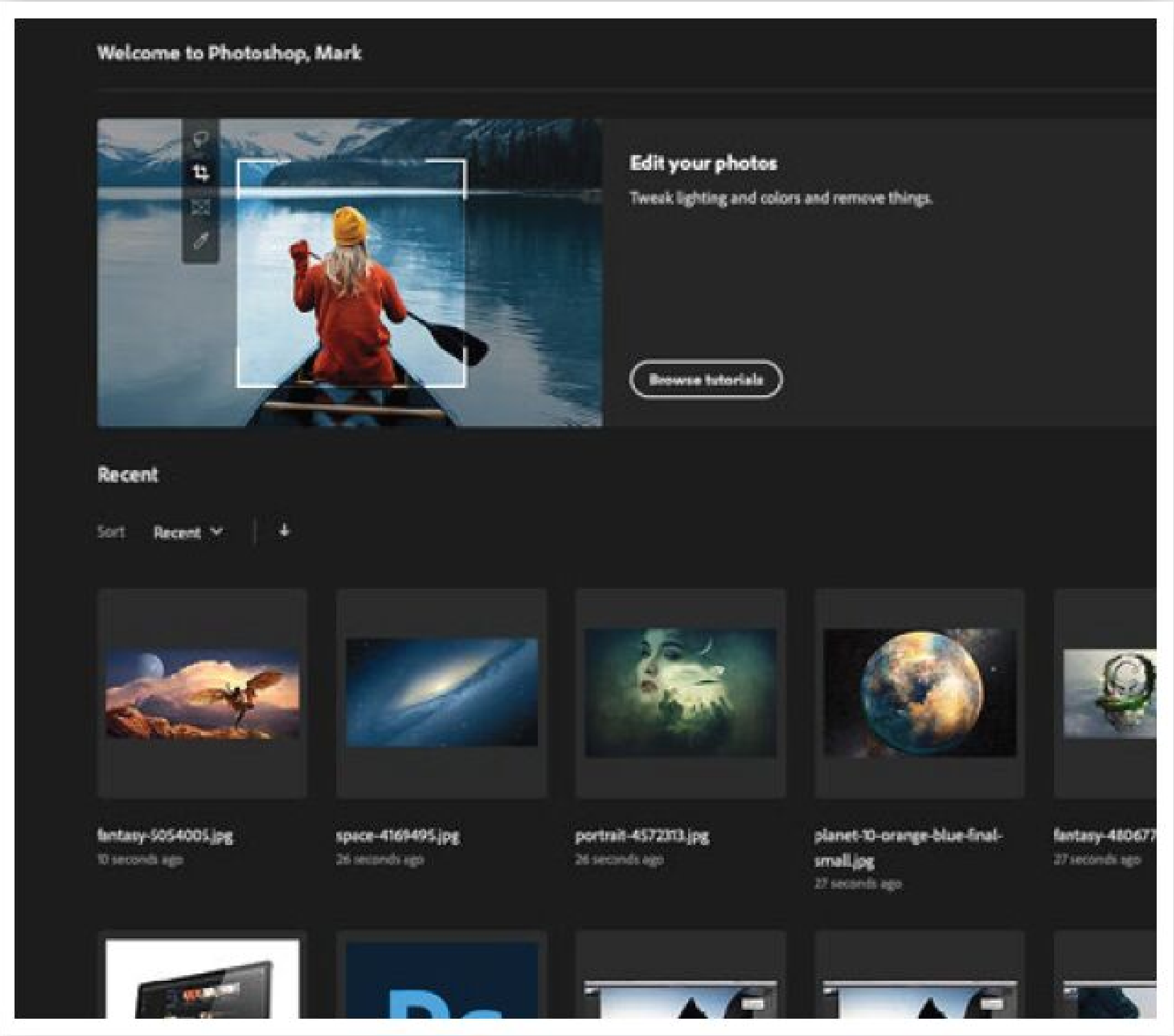
Let's start at the very beginning and walk you through the process of making your very first document

You might think that opening or creating a new Photoshop document is a very simple task to achieve. In the days of older versions of Photoshop that was certainly true with its original start up sequence. You either opened a photo, or you made a new document and started work. These days, with the advent of Photoshop CC, it's a slightly more involved affair and goes way beyond anything that has been seen in Photoshop before. The newest version of the program has a Home screen and a more interactive front end, offering a lot more choice from the very moment you open the program. Let's start at the very beginning, dive in and have a quick look at what the Home Screen has on offer for the new user, create a couple of different documents and get to know the options available to us.

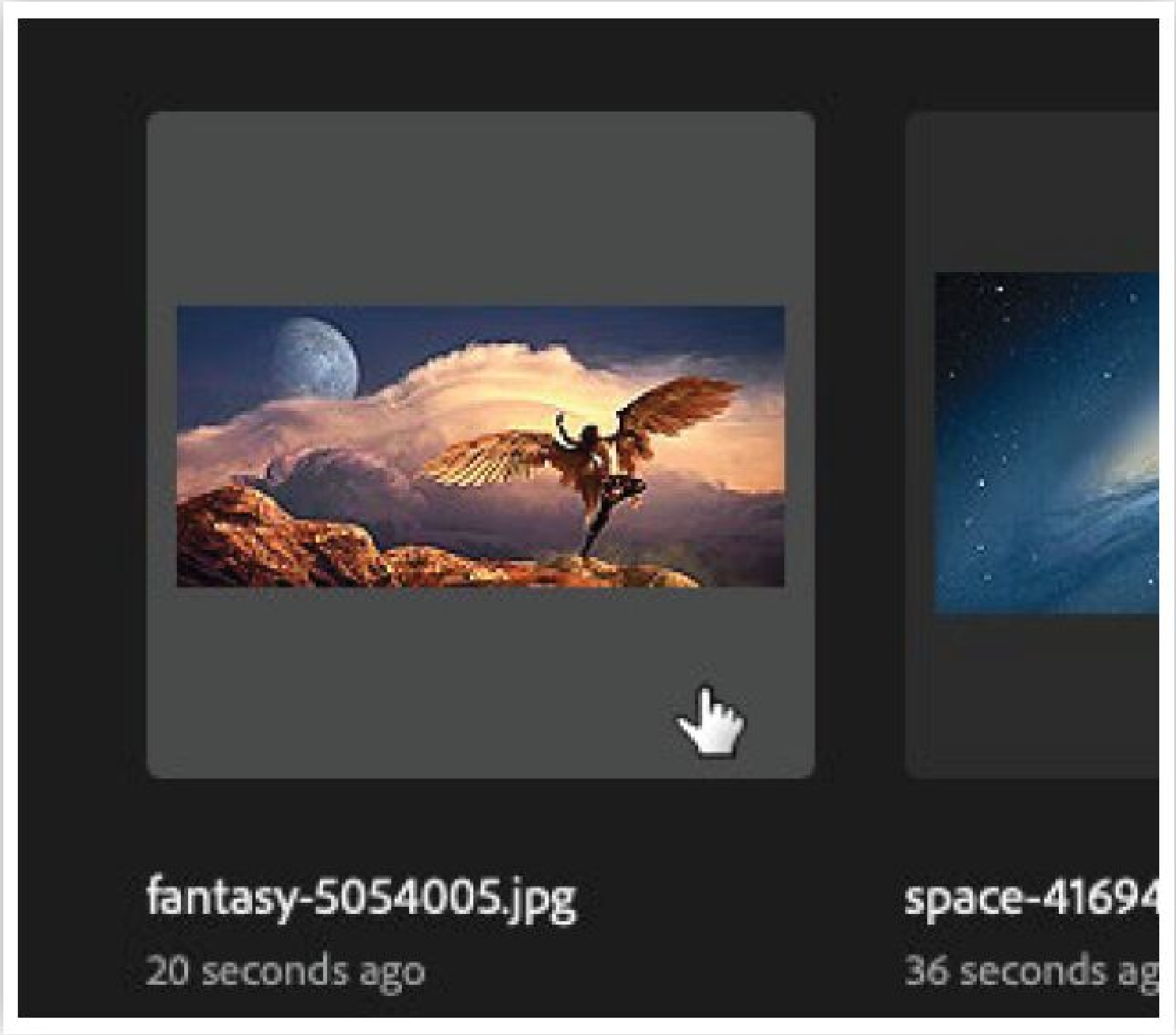

Edit your photos
Tweak lighting and colors and remove things.
Browse tutorials
Recent
Sort
Recent
fantasy-5054005.jpg
10 seconds ago
space-4169495.jpg
26 seconds ago
portrait-4572313.jpg
26 seconds ago
planet-10-orange-blue-final-small.jpg
27 seconds ago


Recent
Saved
YOUR RECENT ITEMS (20)
2000 pixel grid
2000 x 2000 px @ 300 ppi
1254 x 6
Custom
BEFORE

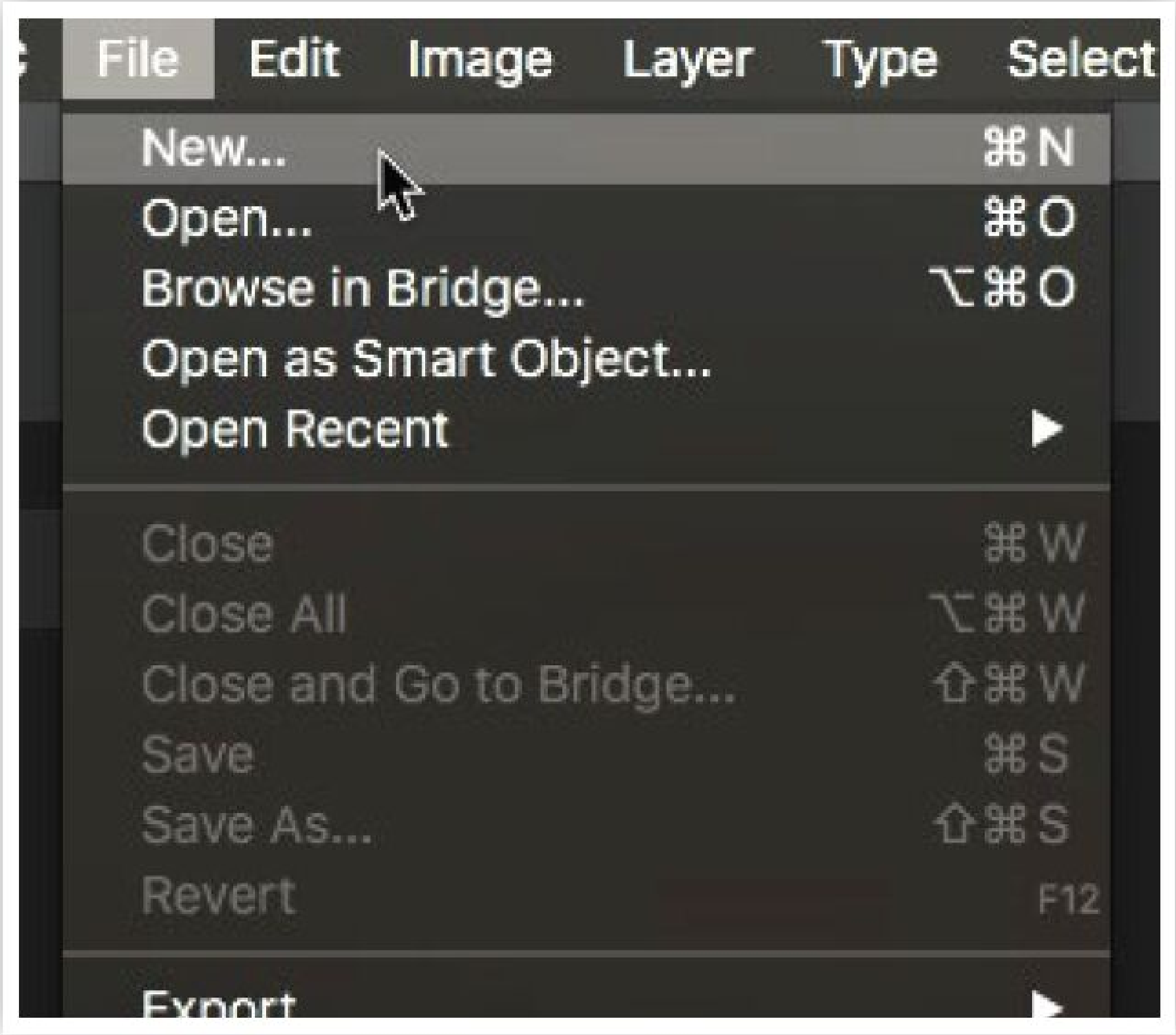

AFTER
Layers
Kind
Normal
Opacity: 100%
Lock:
Fill: 100%
Layer 1


Welcome to Photoshop, Mark
Edit your photos
Tweak lighting and colors and remove things.
Browse tutorials
Recent
Sort Recent

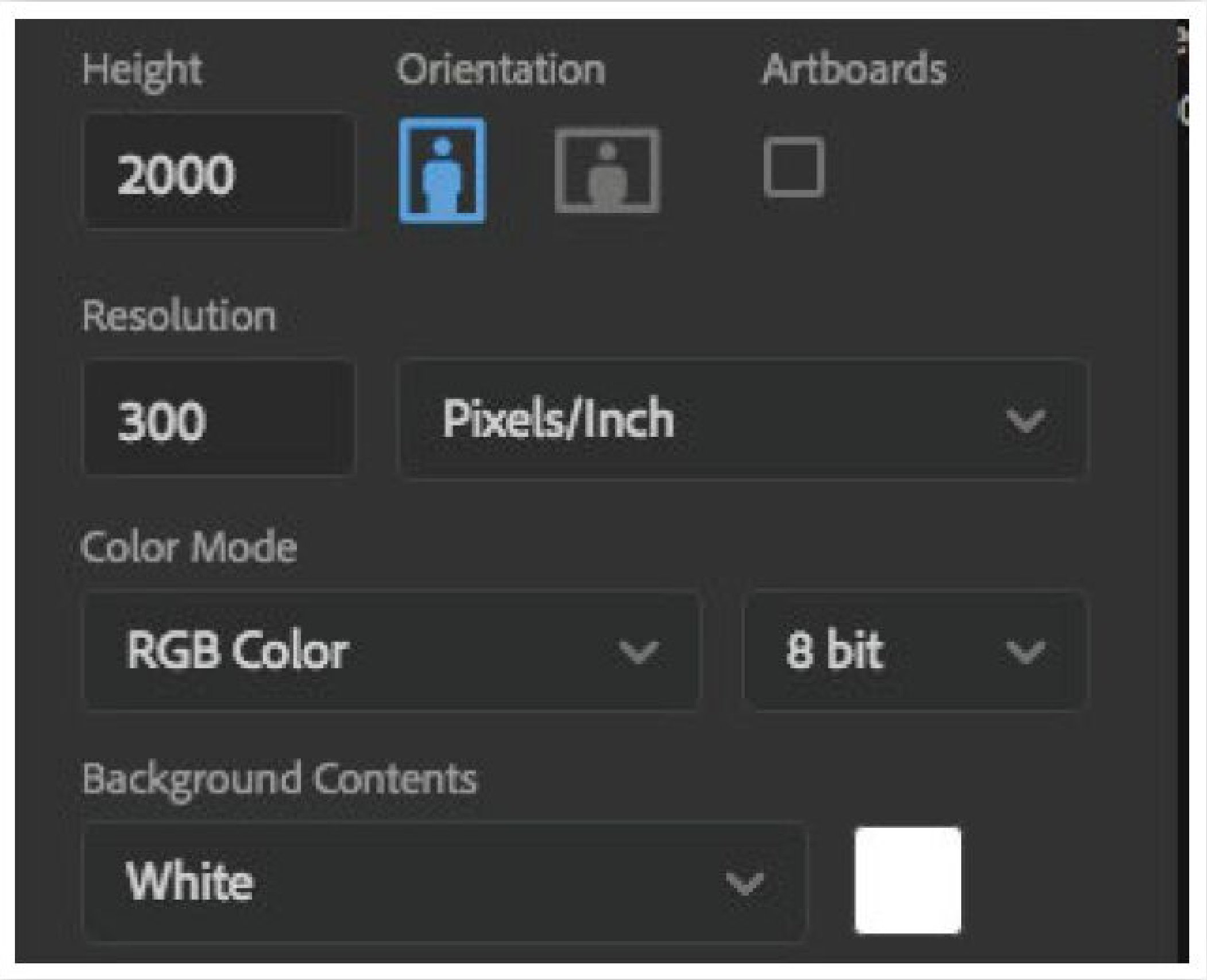
01 If you have never used Photoshop before, the first time you open the program you are presented with the Welcome screen giving you the option to take a tour, check out the new features or just open an image and get started on your new project.


fantasy-5054005.jpg
20 seconds ago
space-41694
36 seconds ag

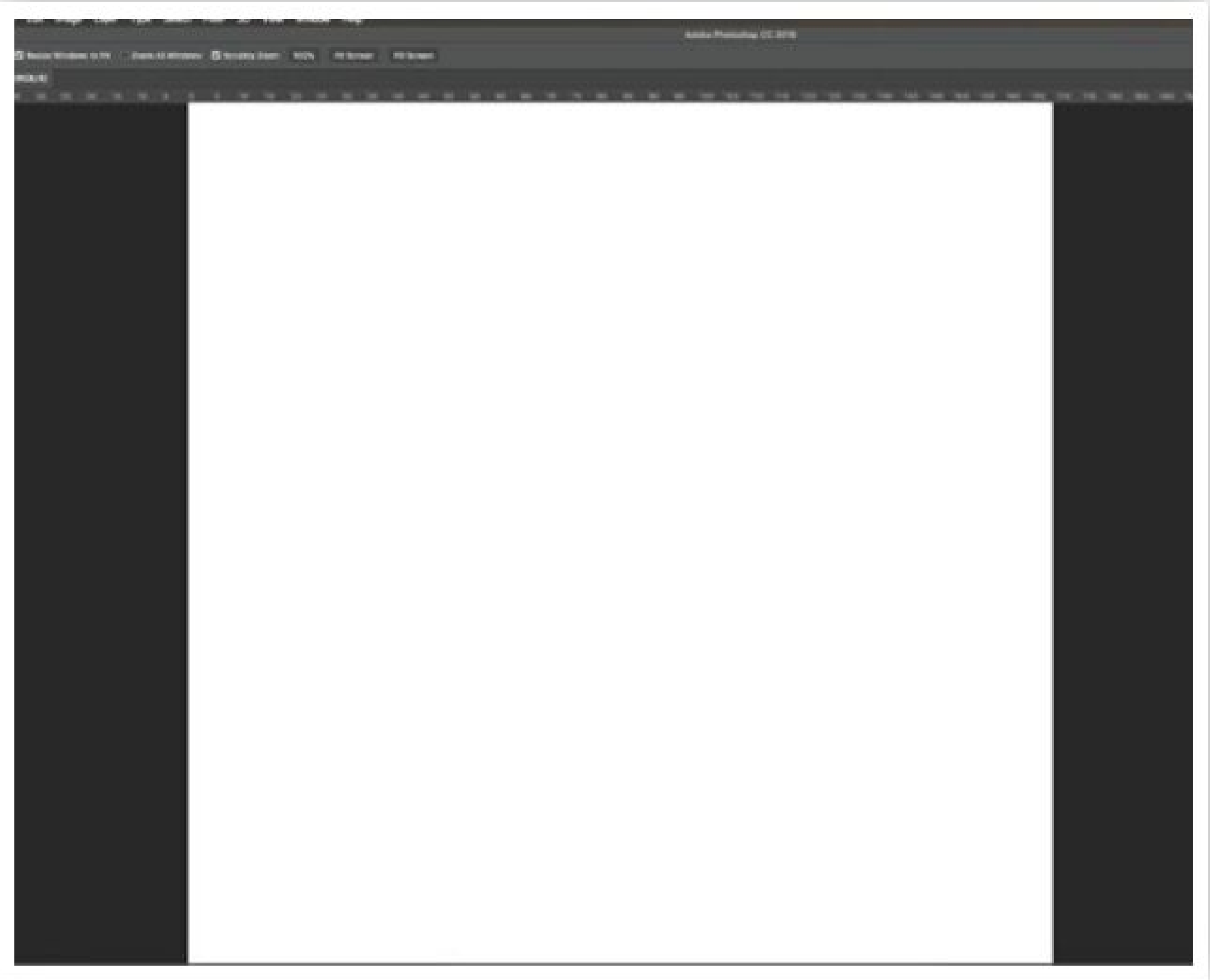
02 If you've used Photoshop a few times, your Home screen will look slightly different. It will display any recent images you have been working on as a set of thumbnails. You can click on any thumbnail to open that file and resume working on it.


File
Edit
Image
Layer
Type
Select
New... ⌘N
Open... ⌘O
Browse in Bridge... ⌥⌘O
Open as Smart Object...
Open Recent ▶
Close ⌘W
Close All ⌥⌘W
Close and Go to Bridge... ⇧⌘W
Save ⌘S
Save As... ⇧⌘S
Revert F12
Export ▶

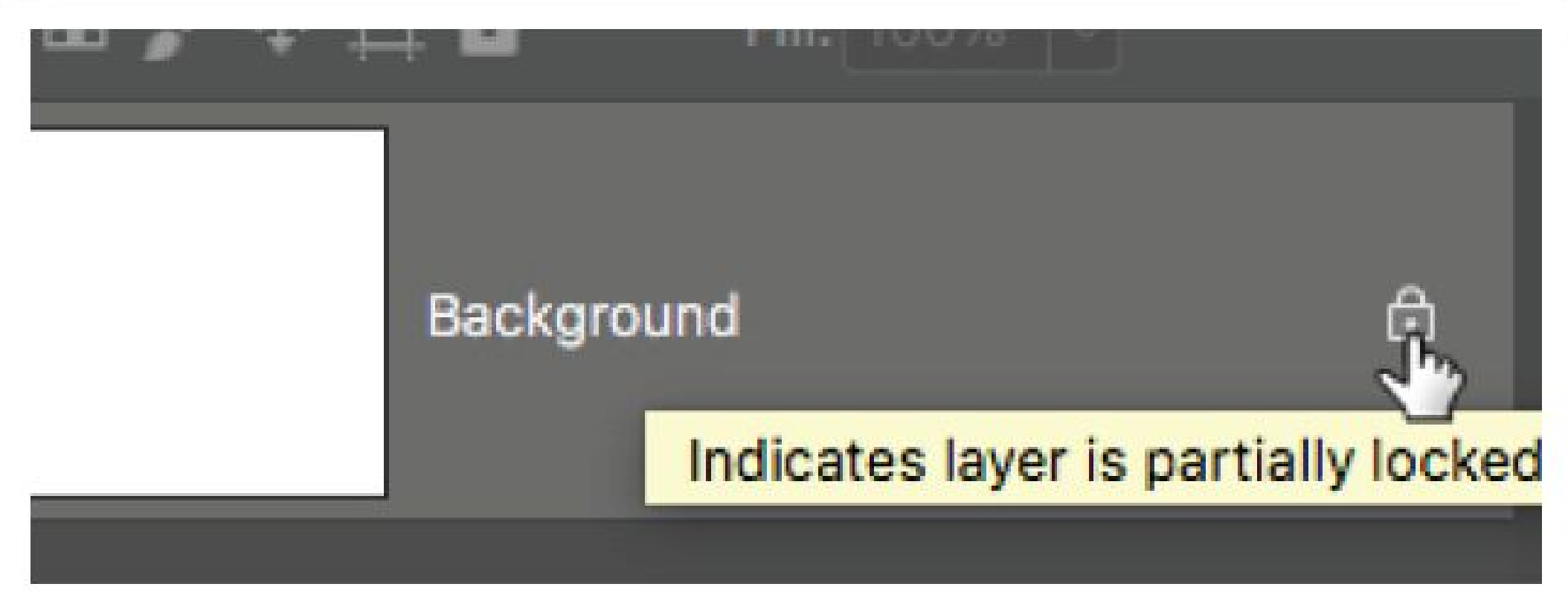
03 To create a new document, you can either go to the top file menu and choose File > New (Cmd + N), or simply click on the Create New button on the left of the Home screen. Either option will open the New Document screen, ready to start your project.

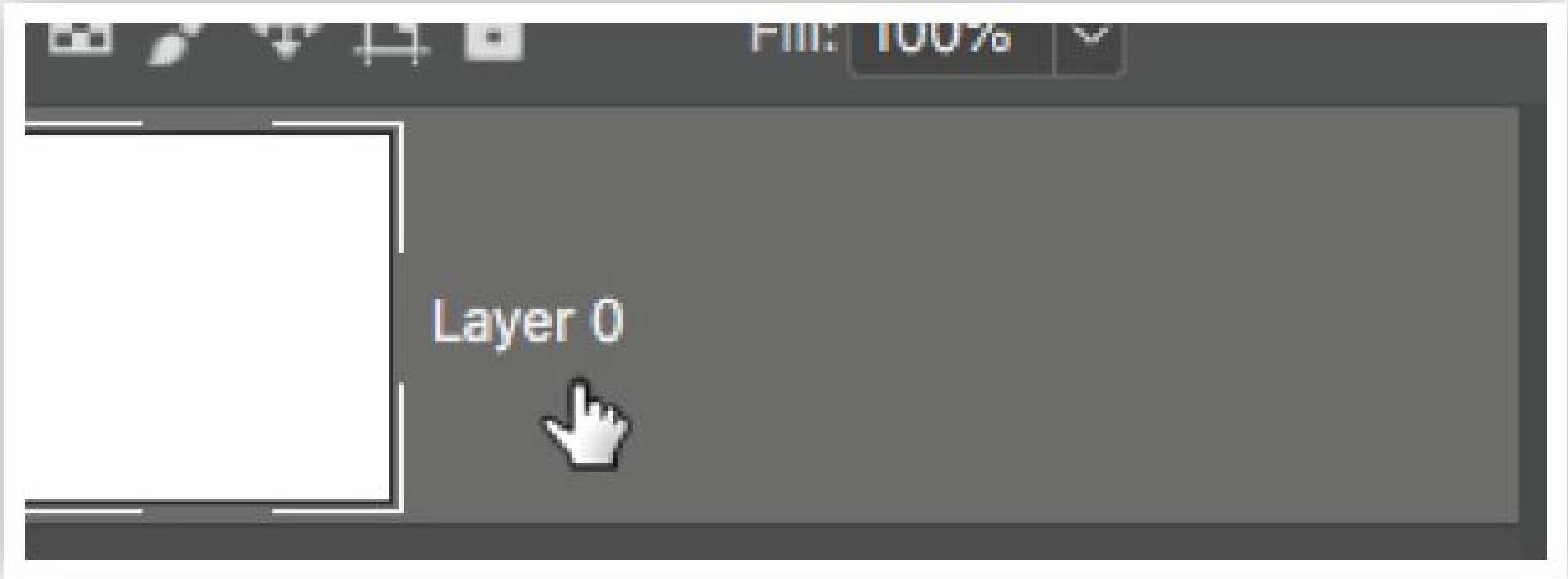

Height: 2000
Orientation
Artboards
Resolution: 300 Pixels/Inch
Color Mode: RGB Color, 8 bit
Background Contents: White

04 We've chosen a 2000 x 2000 pixel document. The default resolution is 300pixels/inch and in RGB Color mode with White Background Contents. If you are not familiar with Colour Mode and Colour Profile, you can happily stick with the defaults for general use.

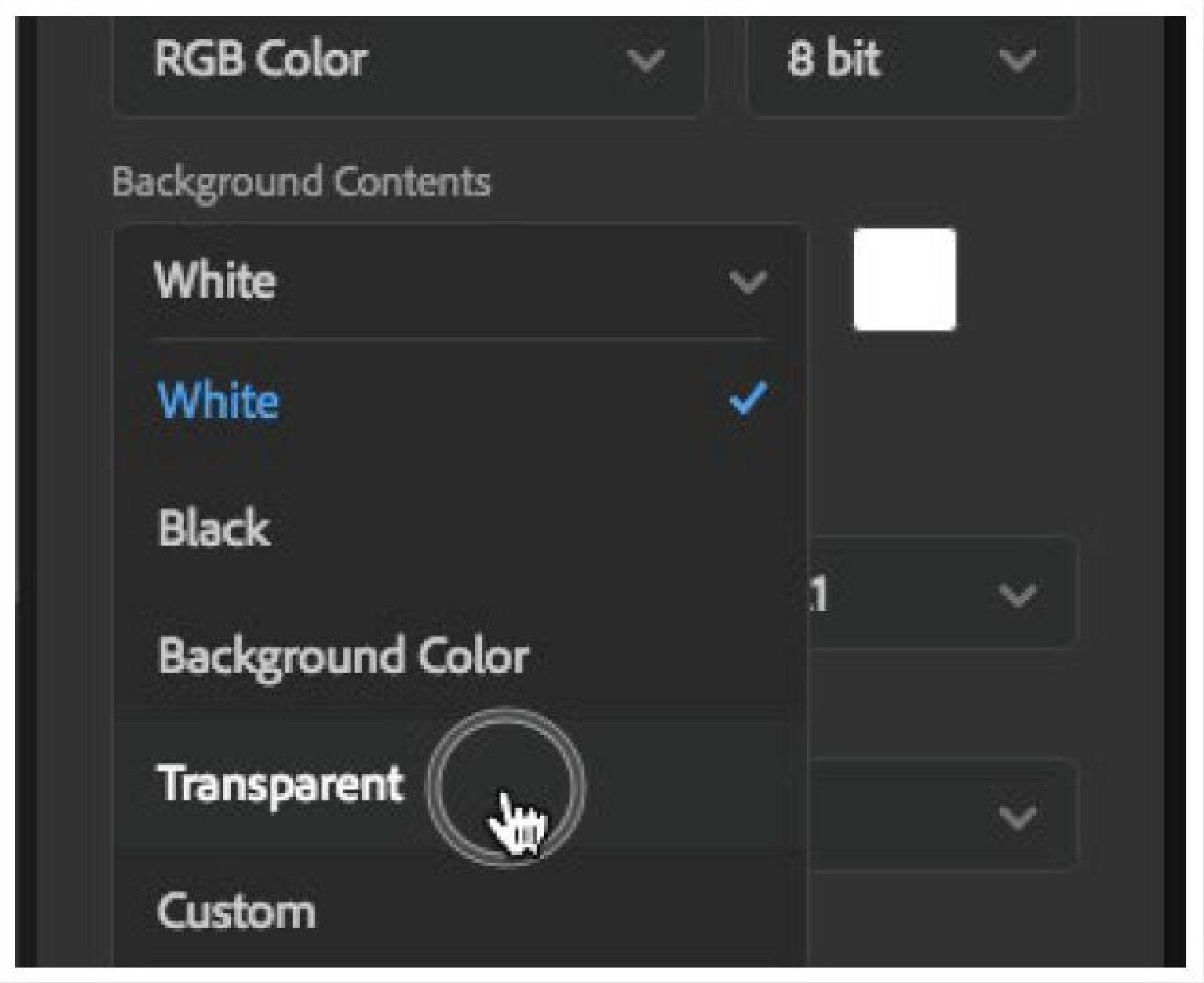


05 When you hit the Create button, a new document is created with your settings applied from the New Document screen. Since we opted for the Background Contents to be white, the new document will be created with the Background layer appearing as a locked, white layer.

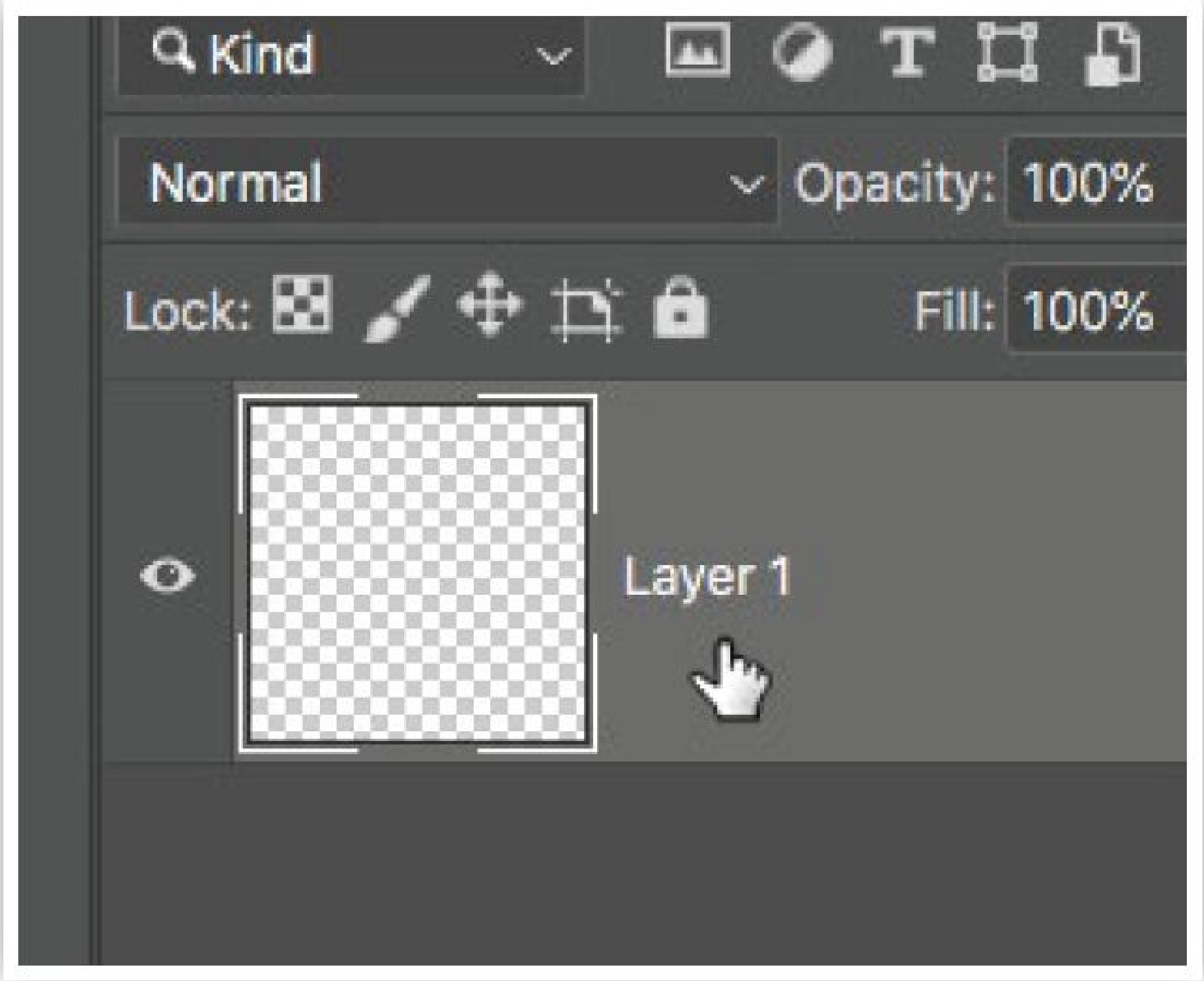

Background
Indicates layer is partially locked


Fill: 100%
Layer 0

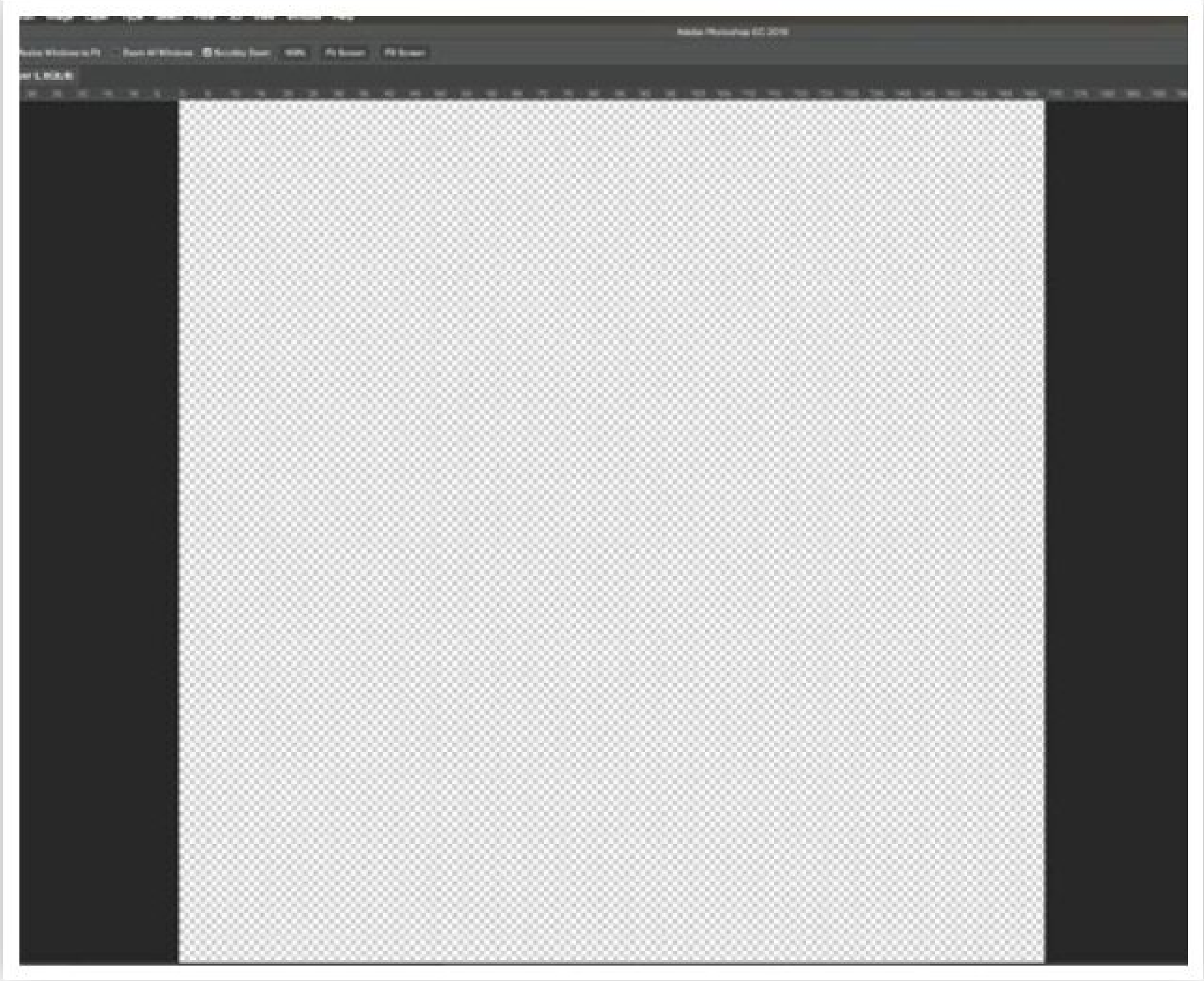
06 If you look at the Background layer in your layers palette, you will see the small Padlock icon that indicates the layer is locked. If you click on the Padlock icon, you can unlock the layer and turn it onto a standard, editable layer called Layer 0.


RGB Color
8 bit
Background Contents
White
White ✓
Black
Background Color
Transparent
Custom

07 Just for comparison, if we start going through the new document procedure once more, we can also alter the Background Contents and, in this case, choose Transparent instead. Now, when you hit the Create button, you will have a different looking document.


Kind
Normal
Opacity: 100%
Lock:
Fill: 100%
Layer 1

08 This time, when your new document appears, it will have a transparent background layer, called Layer 1, which will also be unlocked and ready to edit. Transparent layers are easy to spot since you will see the chequerboard pattern of white and grey squares.

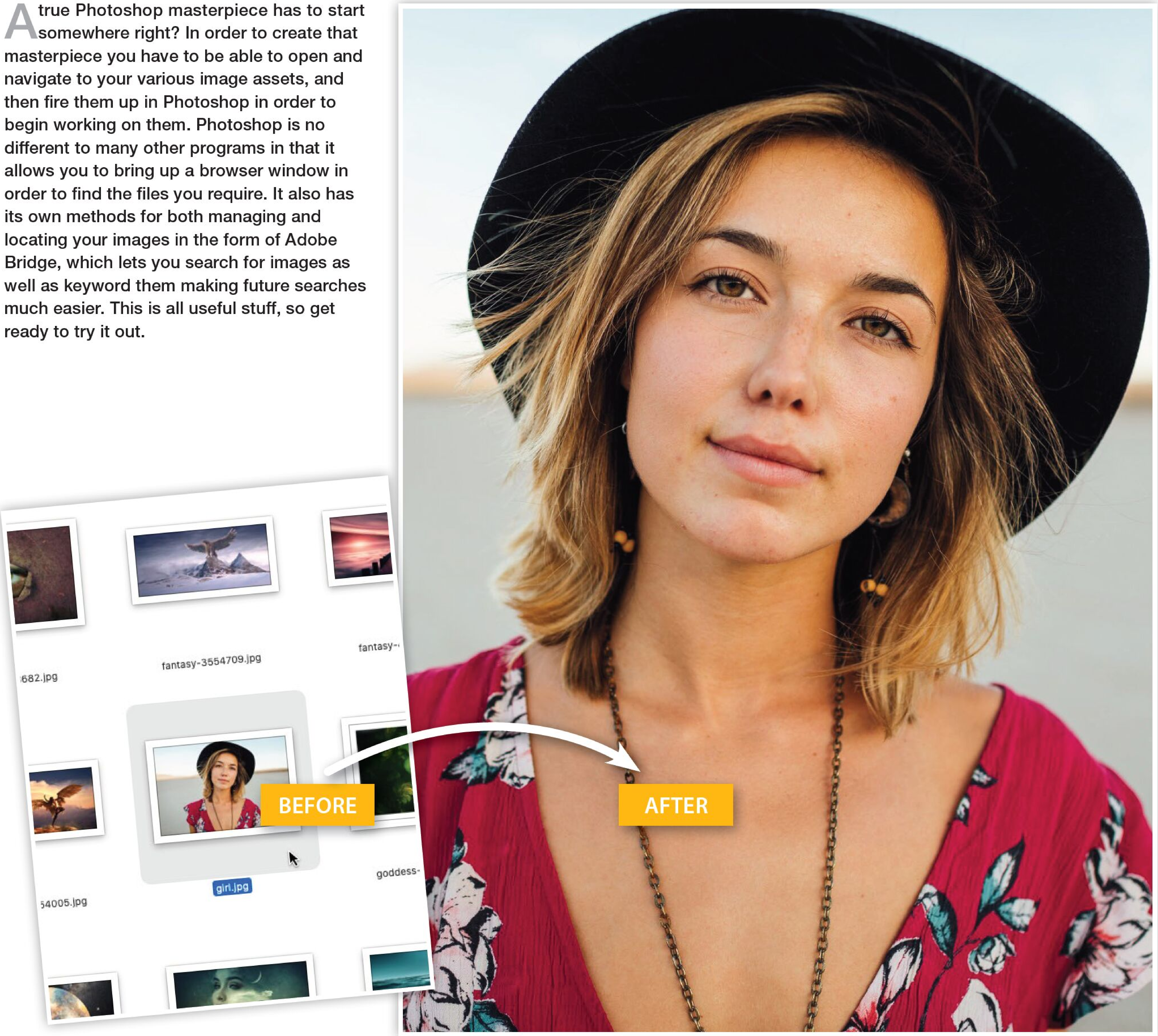


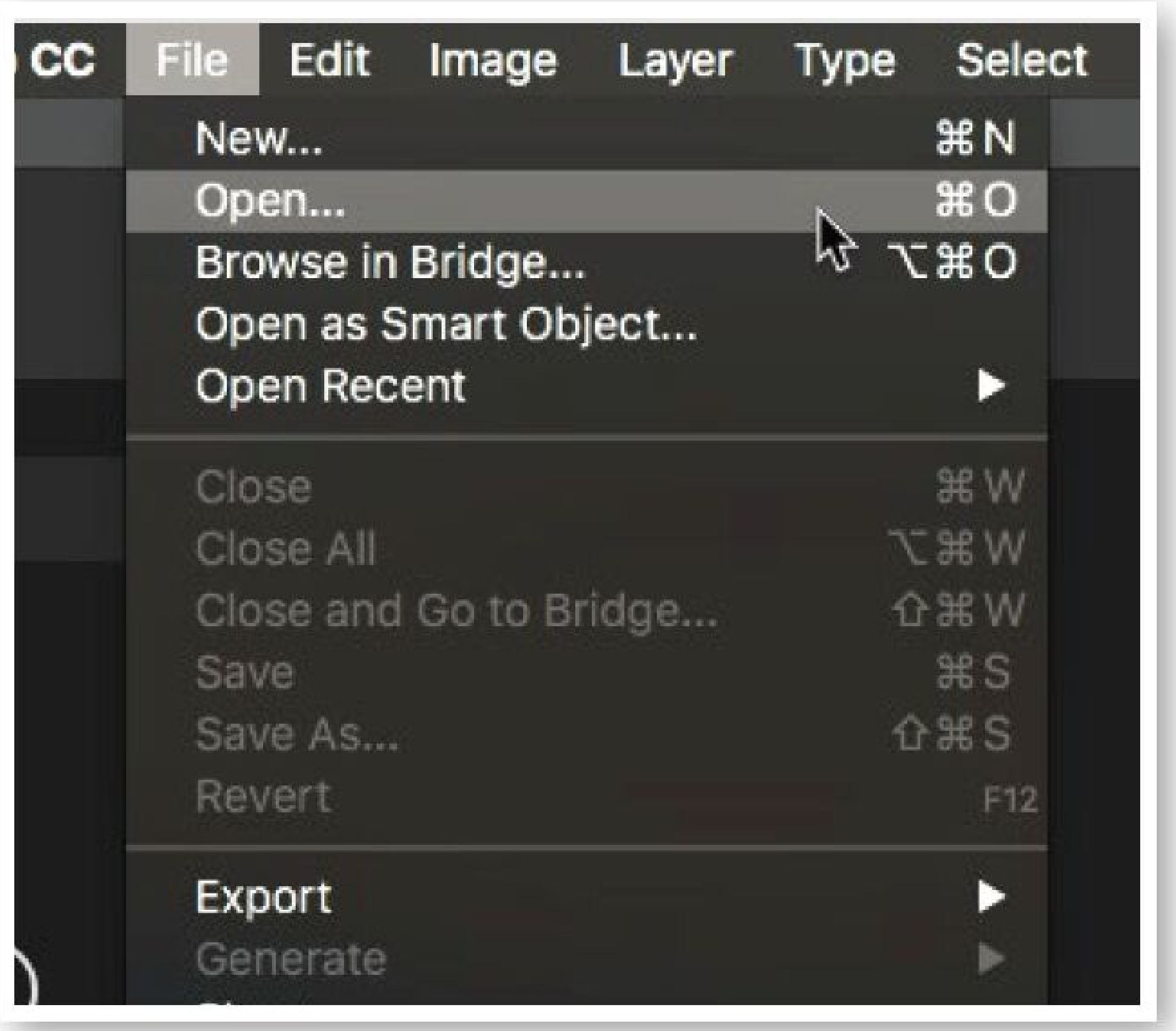
09 That is your first document created. So far so good, now, of course, you can start populating the document with images and graphics to create your very own work of art. Don't worry if you've not tried it before. We can show you how it's done.

Open and Save Your First Image

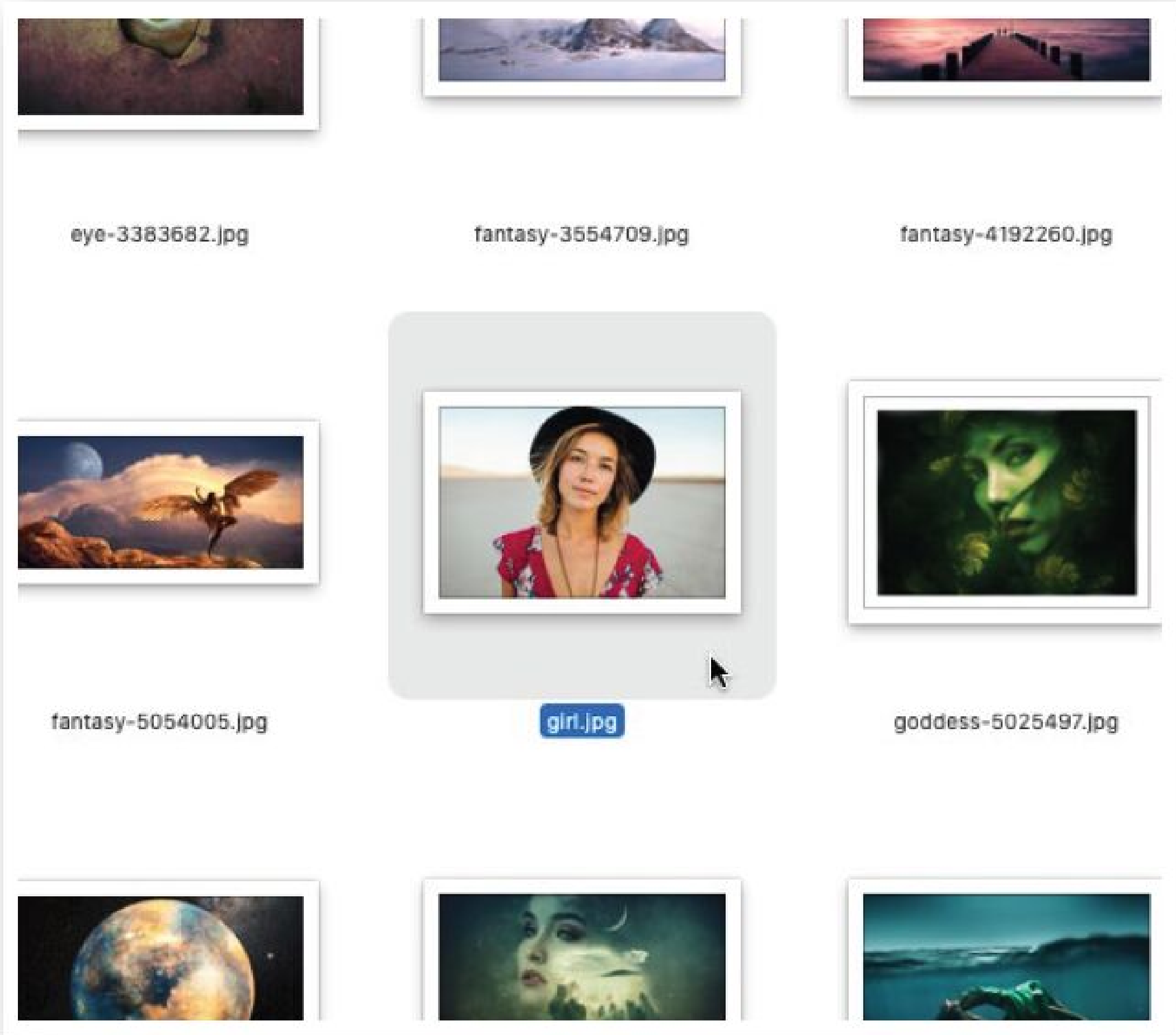
A quick guide on how to open new photos and images in Photoshop, and then save your edits

A true Photoshop masterpiece has to start somewhere right? In order to create that masterpiece you have to be able to open and navigate to your various image assets, and then fire them up in Photoshop in order to begin working on them. Photoshop is no different to many other programs in that it allows you to bring up a browser window in order to find the files you require. It also has its own methods for both managing and locating your images in the form of Adobe Bridge, which lets you search for images as well as keyword them making future searches much easier. This is all useful stuff, so get ready to try it out.

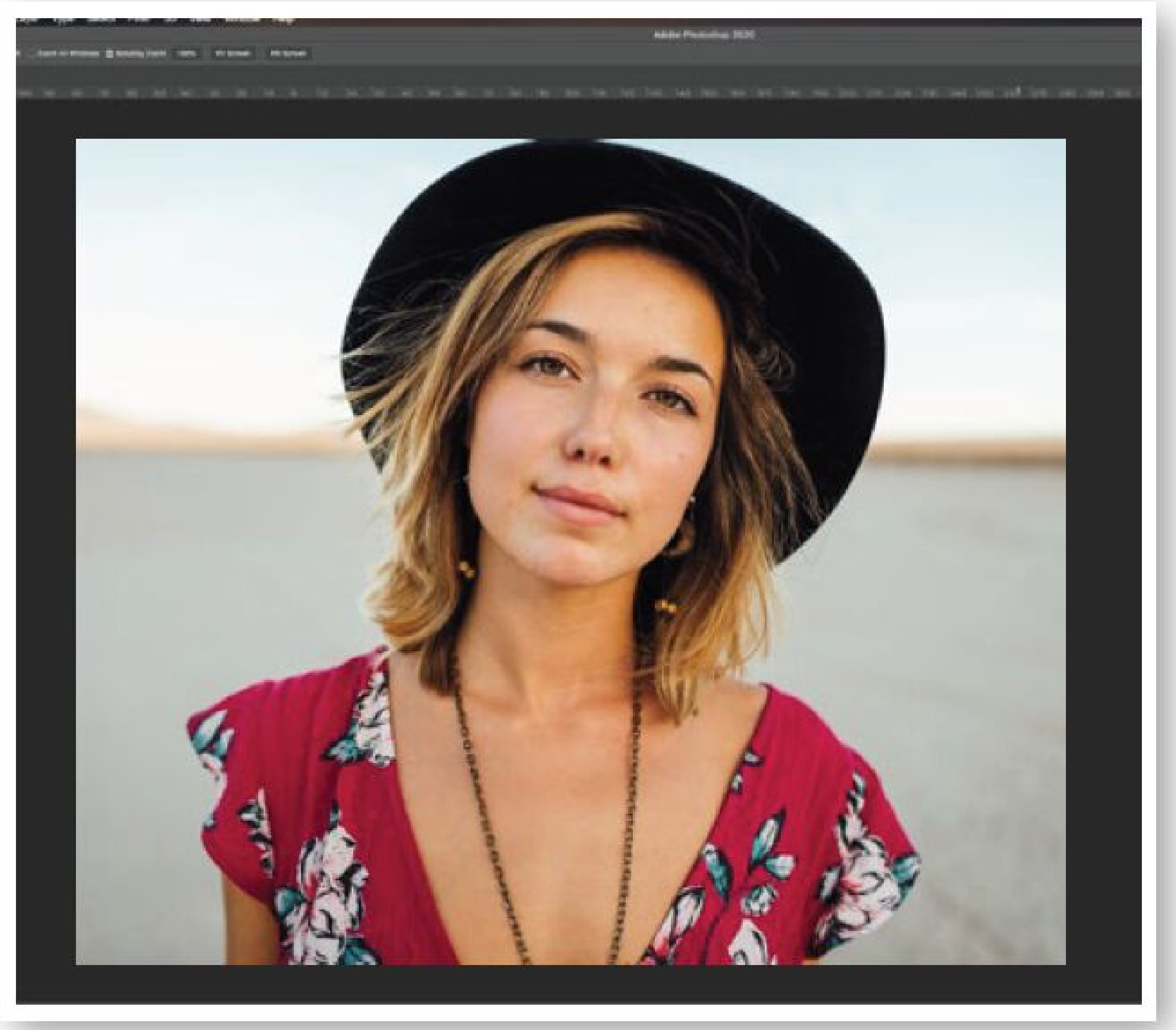



CC File Edit Image Layer Type Select
New... ⌘N
Open... ⌘O
Browse in Bridge... ⌥⌘O
Open as Smart Object...
Open Recent
Close ⌘W
Close All ⌥⌘W
Close and Go to Bridge... ⇧⌘W
Save ⌘S
Save As... ⇧⌘S
Revert F12
Export
Generate

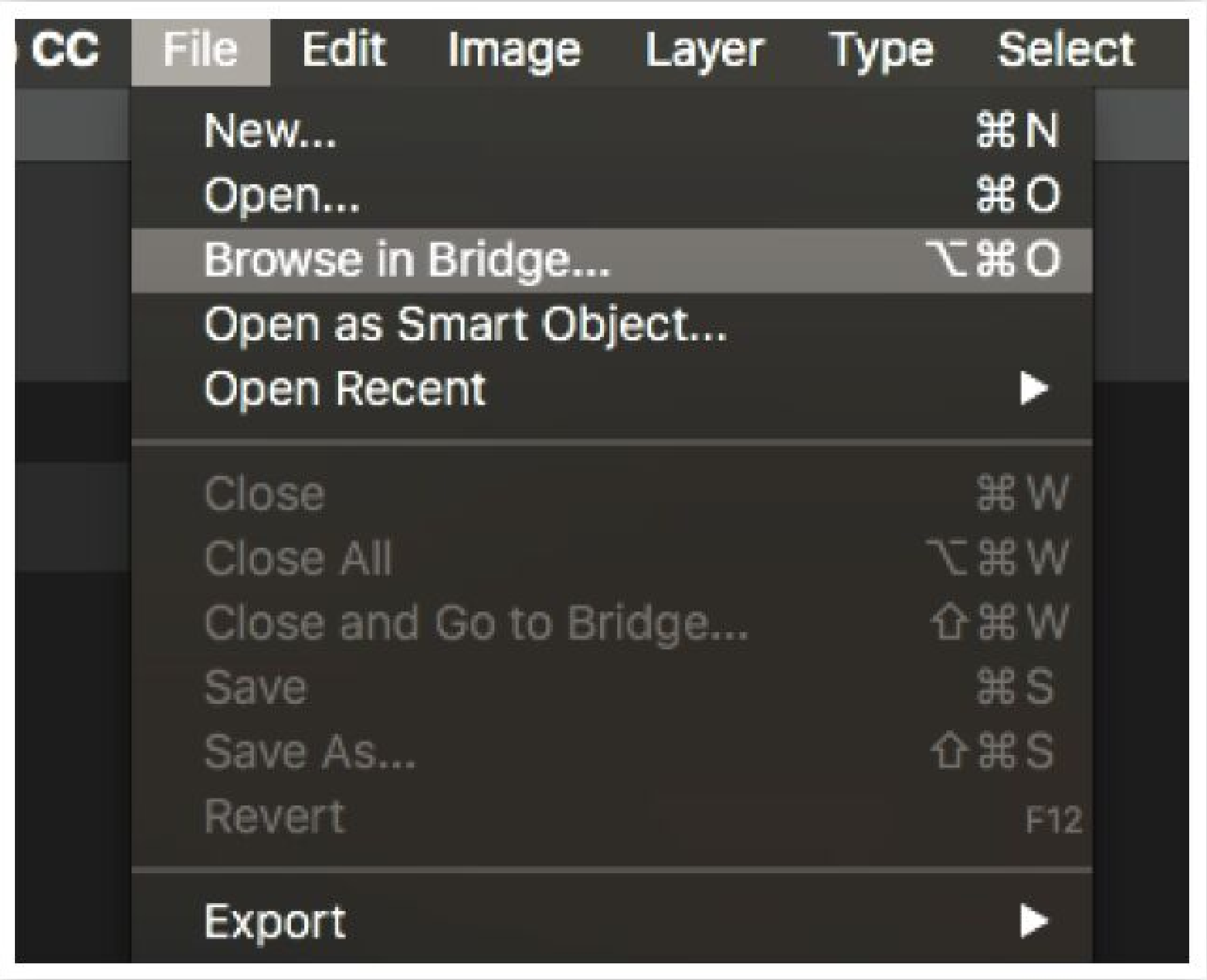
01 Since we've covered how to create a new document, it seems worthwhile just touching on the other options available. One of which is simply to open a base photo. You have the Open option on the Home screen, or, from the top file menu, you can choose File > Open (Cmd + O).


eye-3383682.jpg
fantasy-3554709.jpg
fantasy-4192260.jpg
fantasy-5054005.jpg
girl.jpg
goddess-5025497.jpg

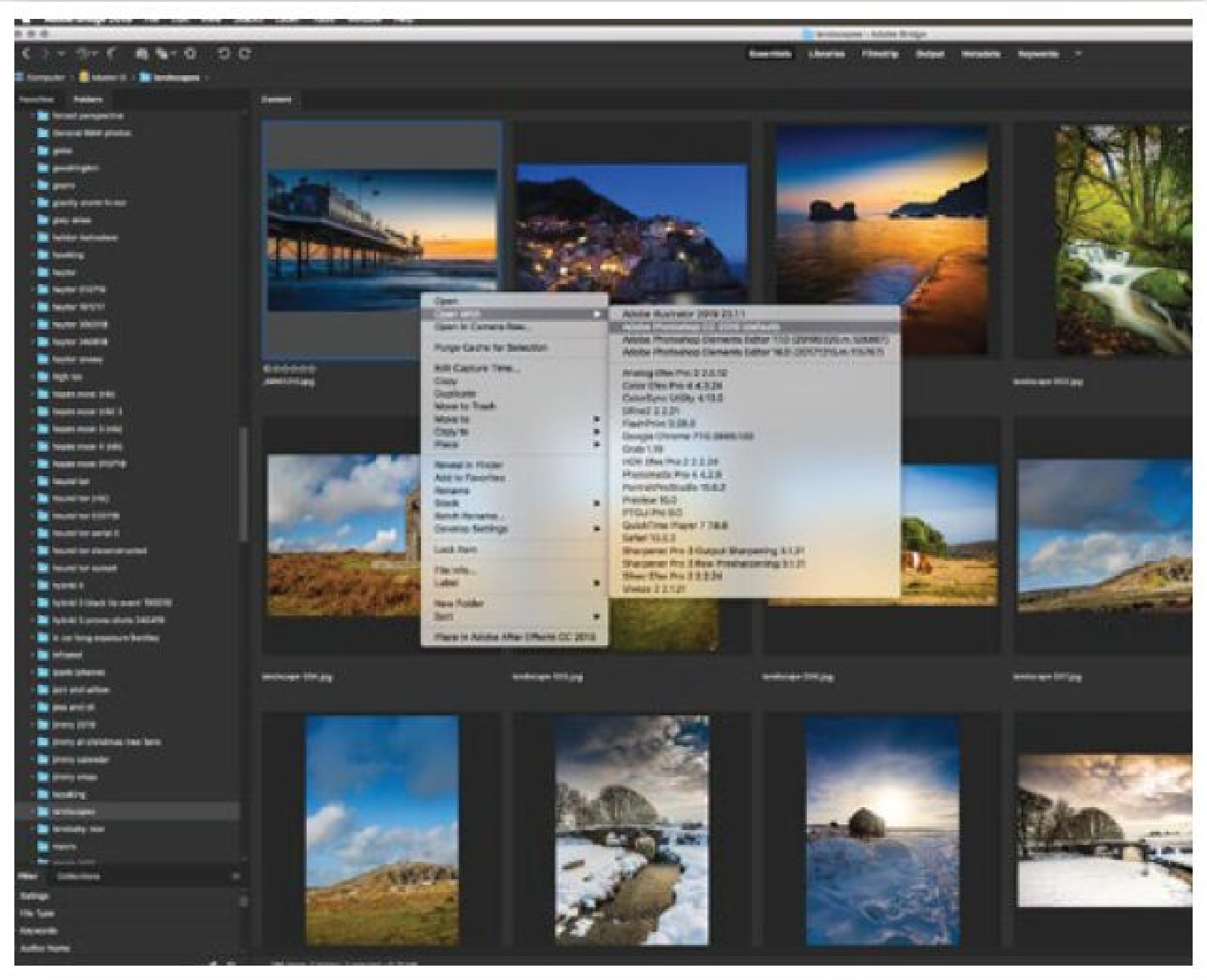
02 This calls up a new window where you can browse your computer's folders for any stored images. It makes sense to try and keep all your image files in a centralised repository, rather than casting around the darkest corners of your hard drive.



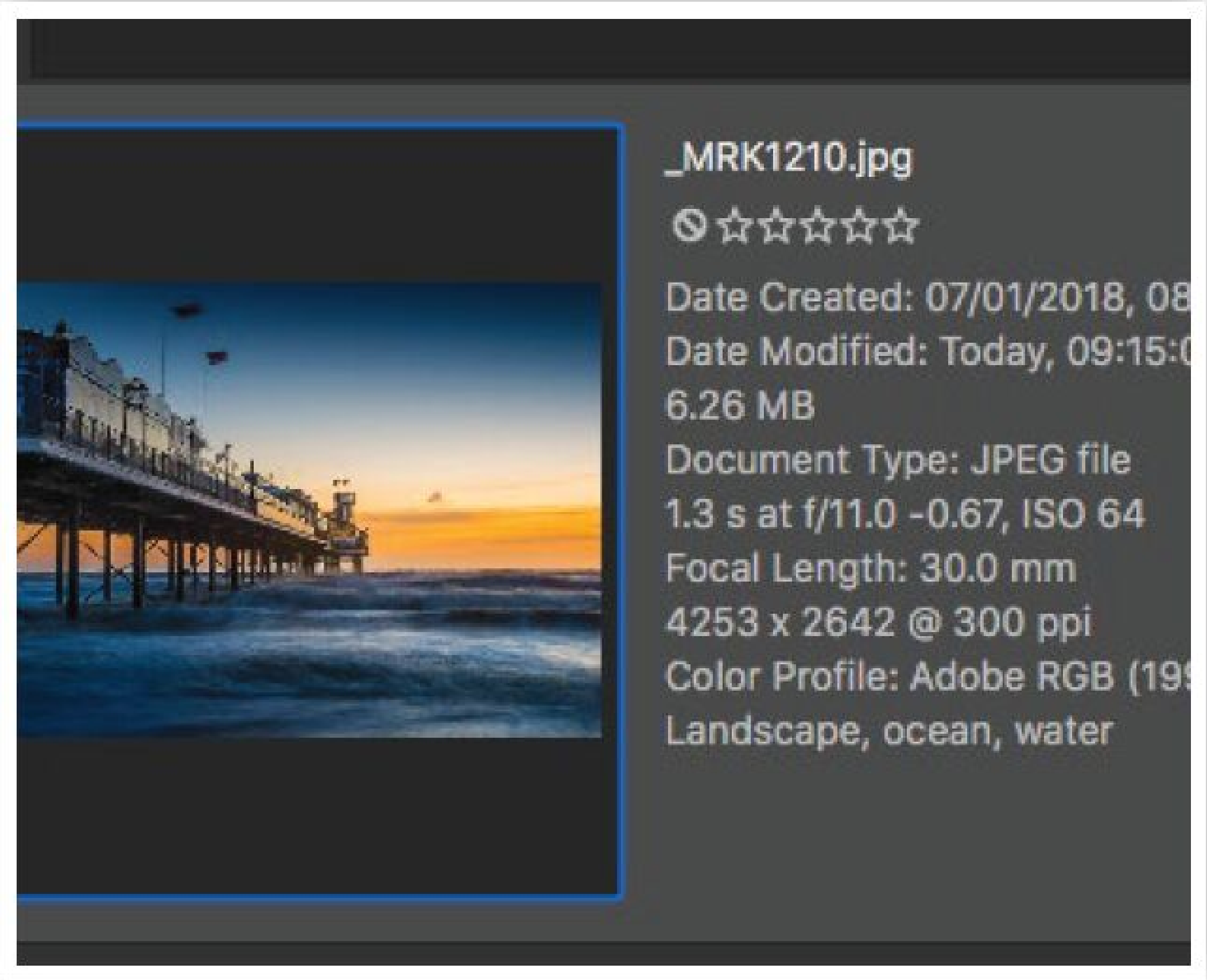
03 Once you have found your image, it is simply a case of either double-clicking the image in question, or highlighting it (or several images at once) and then clicking on the Open button at the lower right of the browser window. They will then open in Photoshop.


CC File Edit Image Layer Type Select
New... ⌘N
Open... ⌘O
Browse in Bridge... ⌥⌘O
Open as Smart Object...
Open Recent
Close ⌘W
Close All ⌥⌘W
Close and Go to Bridge... ⇧⌘W
Save ⌘S
Save As... ⇧⌘S
Revert F12
Export

04 If we can step back to the Home screen for a moment. Rather than using the File > Open menu command, you can choose instead to use the File > Browse in Bridge (Alt + Cmd + O). Bridge is Adobe's image management, cataloguing and key wording application.

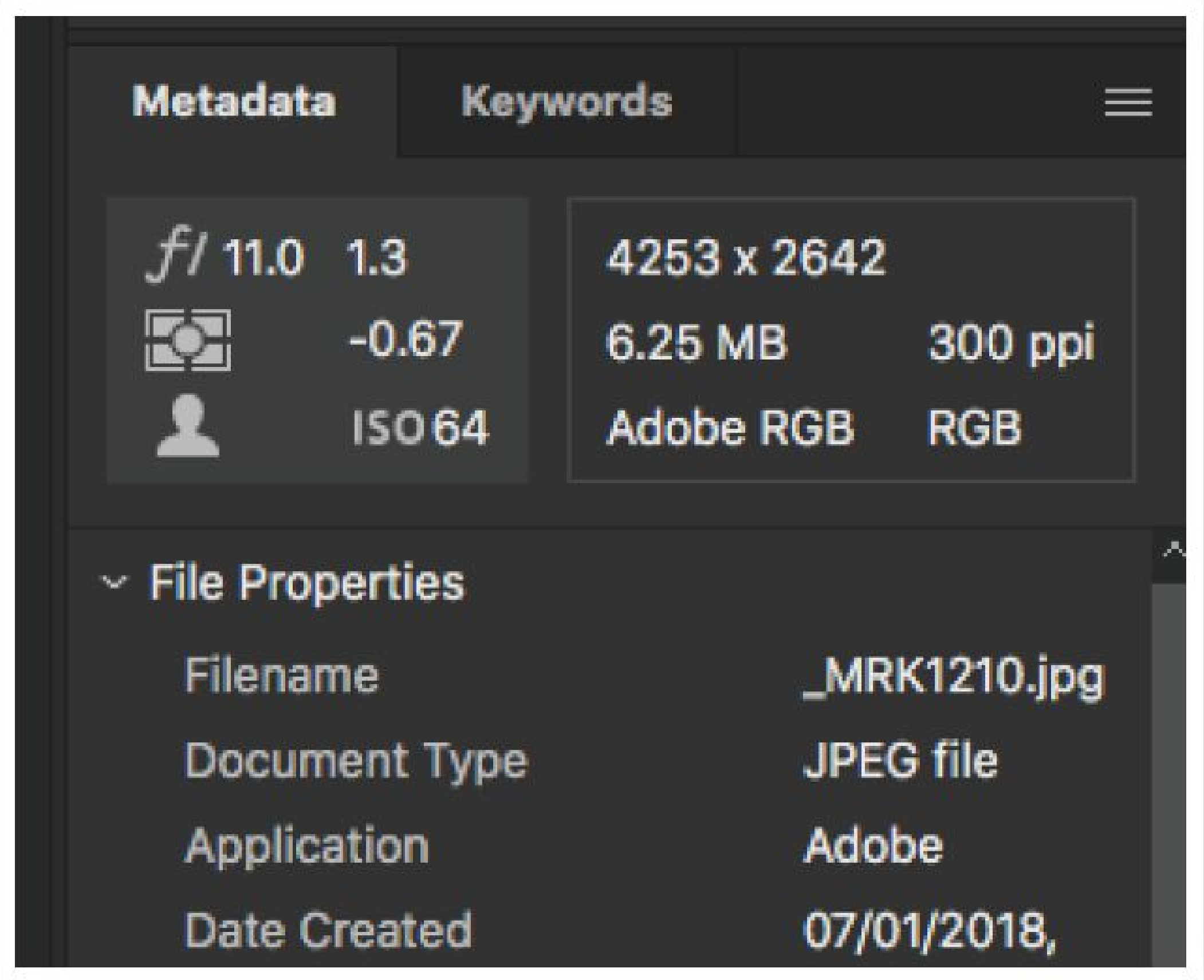


05 Rather than just using a standard browser window, you can use Adobe Bridge to find your images, display them, arrange them in date order and even add specific keywords making them that much easier to search for, and find, if you need them again.



_MRK1210.jpg
Date Created: 07/01/2018, 08
Date Modified: Today, 09:15:0
6.26 MB
Document Type: JPEG file
1.3 s at f/11.0 -0.67, ISO 64
Focal Length: 30.0 mm
4253 x 2642 @ 300 ppi
Color Profile: Adobe RGB (19
Landscape, ocean, water

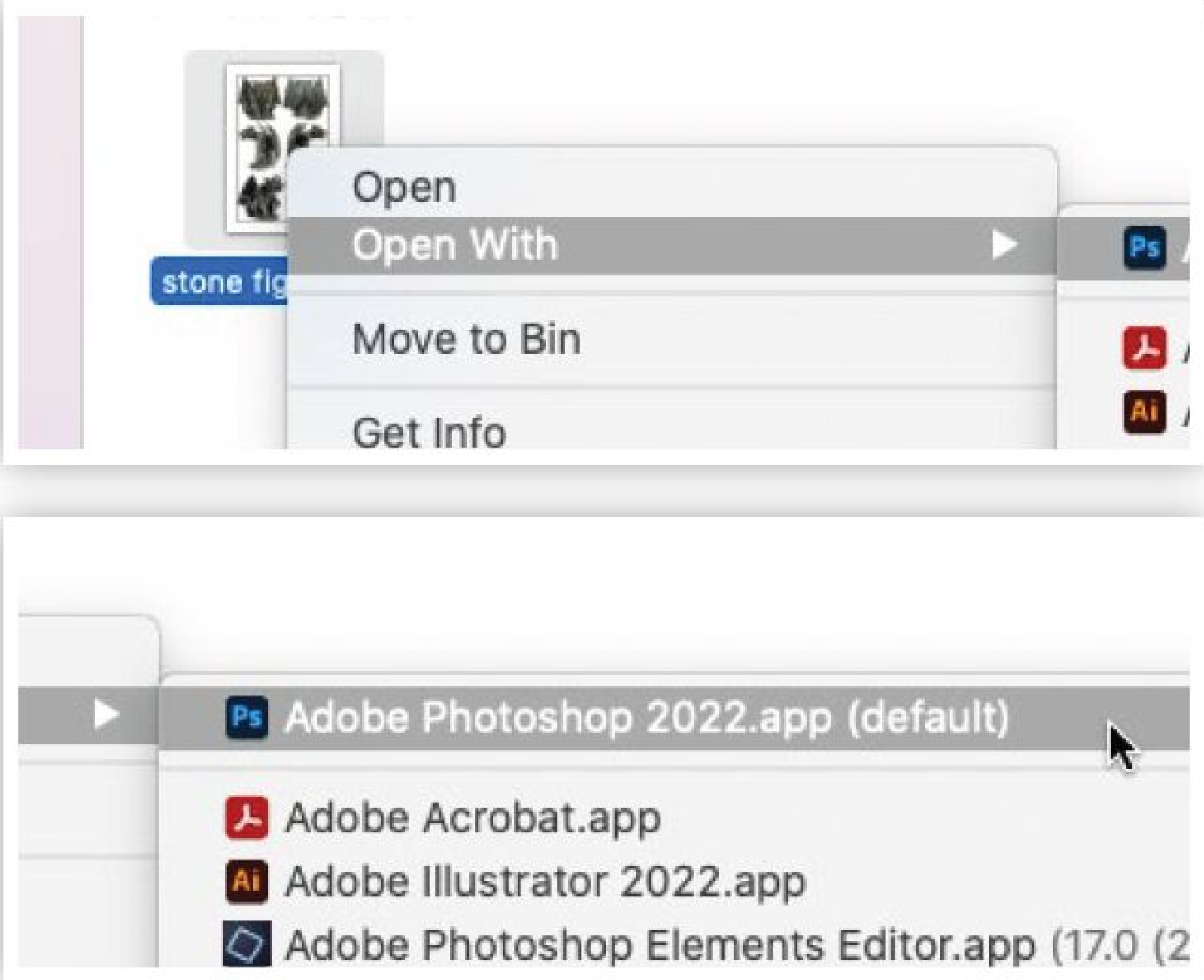
06 You can click single images and add keywords or you can select images in bulk, and, in the Keywords section of Bridge, click the New Keyword button and add keywords specific to those you have currently highlighted. They will then be displayed alongside the images.


Metadata
Keywords

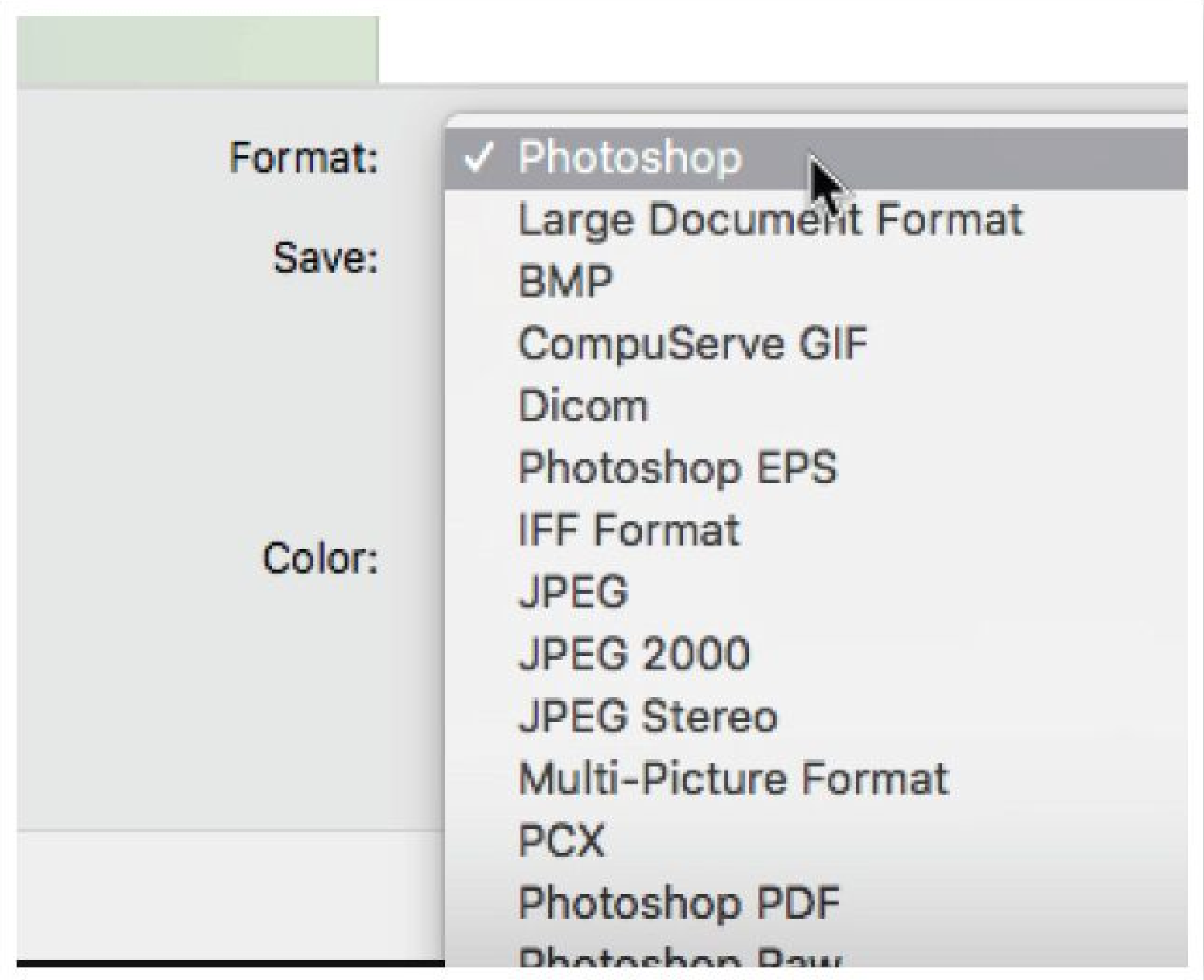
f/ 11.0 1.3
-0.67
ISO 64
4253 x 2642
6.25 MB 300 ppi
Adobe RGB RGB

File Properties
Filename _MRK1210.jpg
Document Type JPEG file
Application Adobe
Date Created 07/01/2018,

07 In Bridge, you can browse your images in much the same way as in a browser window except you have a lot more control over what you can do with them. You also have a lot more image data available to you, which is found in the Metadata section.


stone fig
Open
Open With
Move to Bin
Get Info
Adobe Photoshop 2022.app (default)
Adobe Acrobat.app
Adobe Illustrator 2022.app
Adobe Photoshop Elements Editor.app (17.0 (2

08 When you have found your image, click on it to highlight it and then right-click it to bring up a context menu where you can choose from a number of options. In this case, we would go for the Open With > Adobe Photoshop 2022 (default) option.

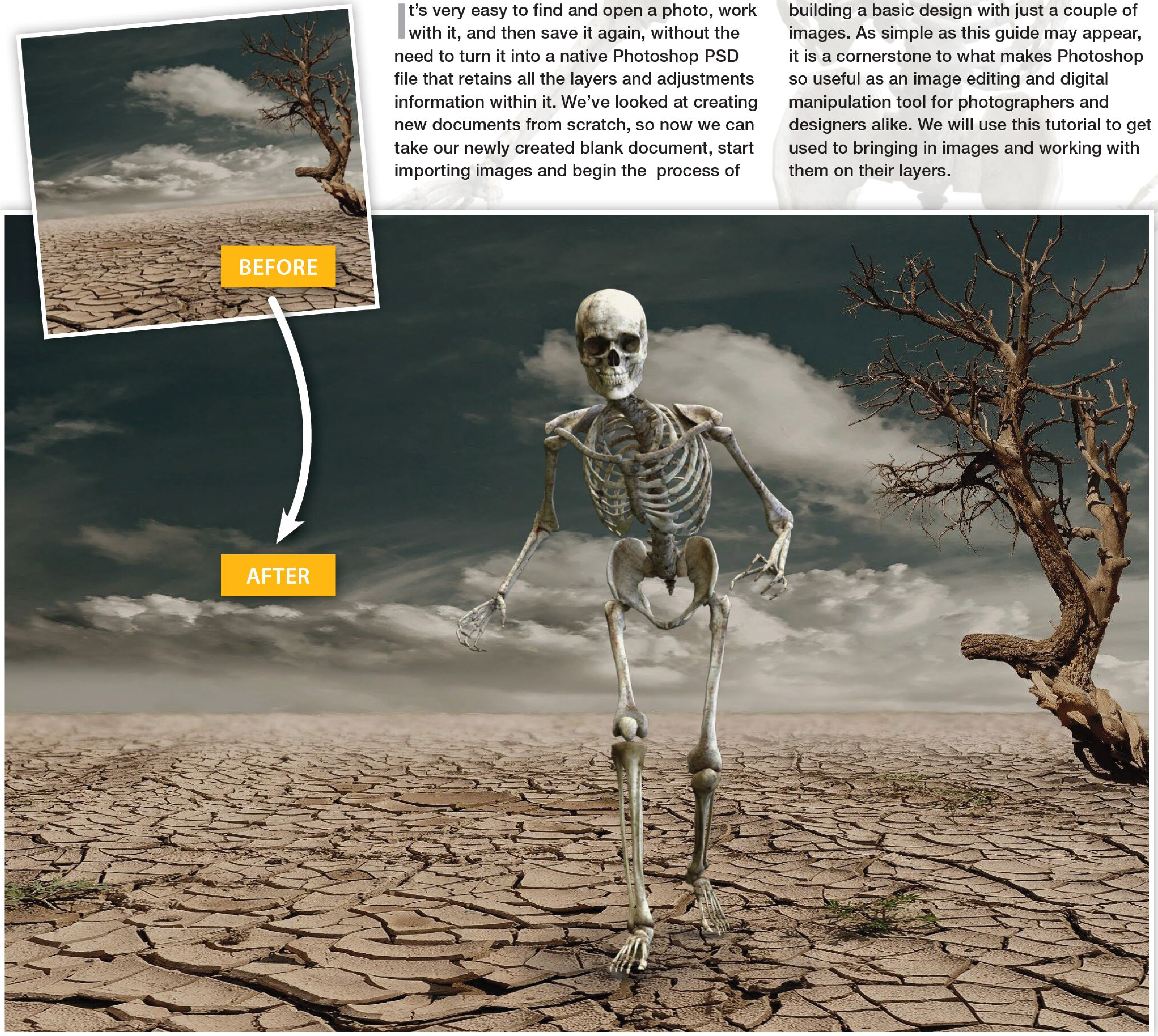

Format:
Save:
Color:
✓ Photoshop
Large Document Format
BMP
CompuServe GIF
Dicom
Photoshop EPS
IFF Format
JPEG
JPEG 2000
JPEG Stereo
Multi-Picture Format
PCX
Photoshop PDF
Photoshop Raw

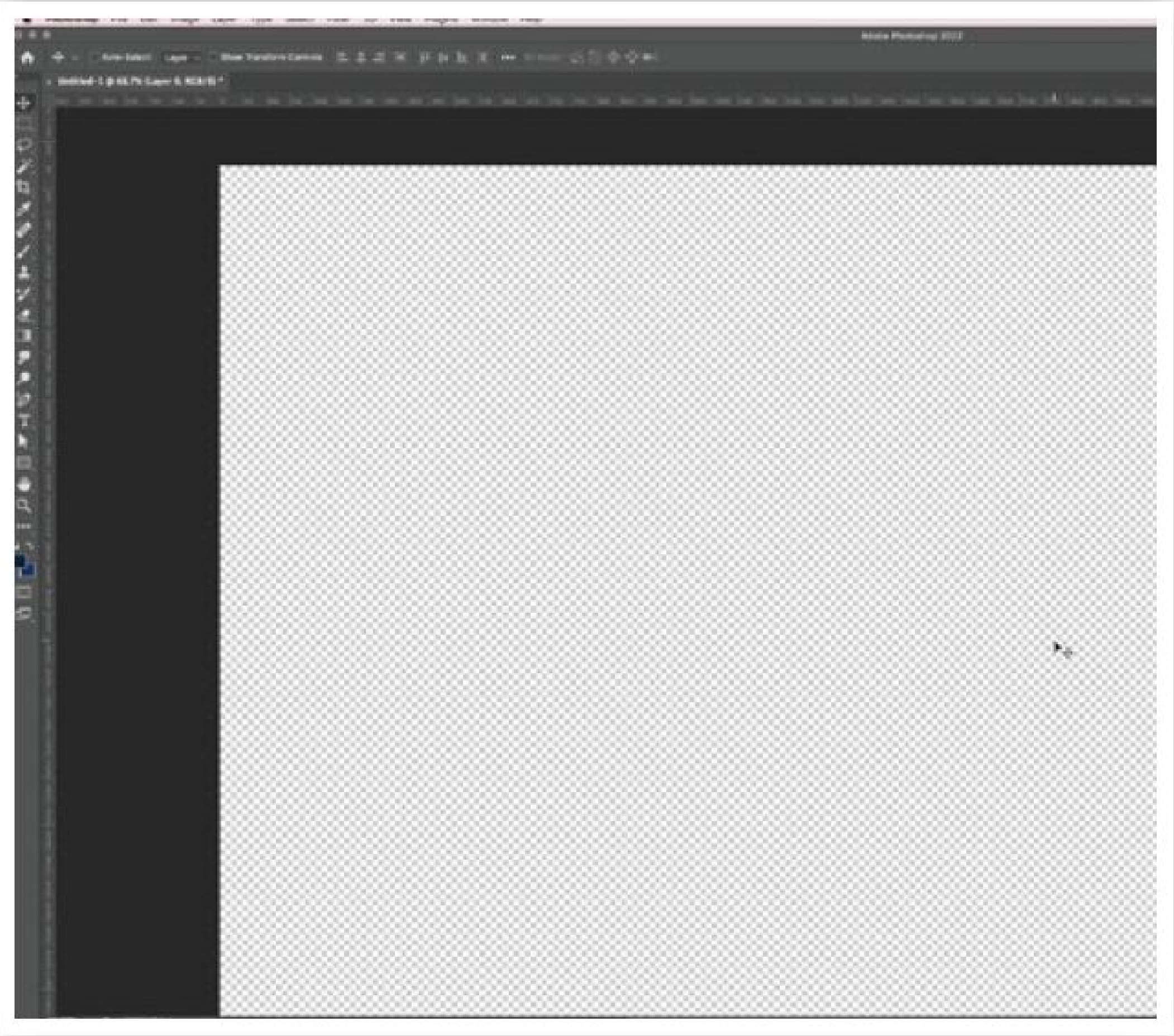
09 If you open a Jpeg and do not add any new layers, when you save it after editing, it will be saved in its original Jpeg format. If, however, you make edits that involve layers and adjustments, then it will need to be saved in PSD format to retain those layers.

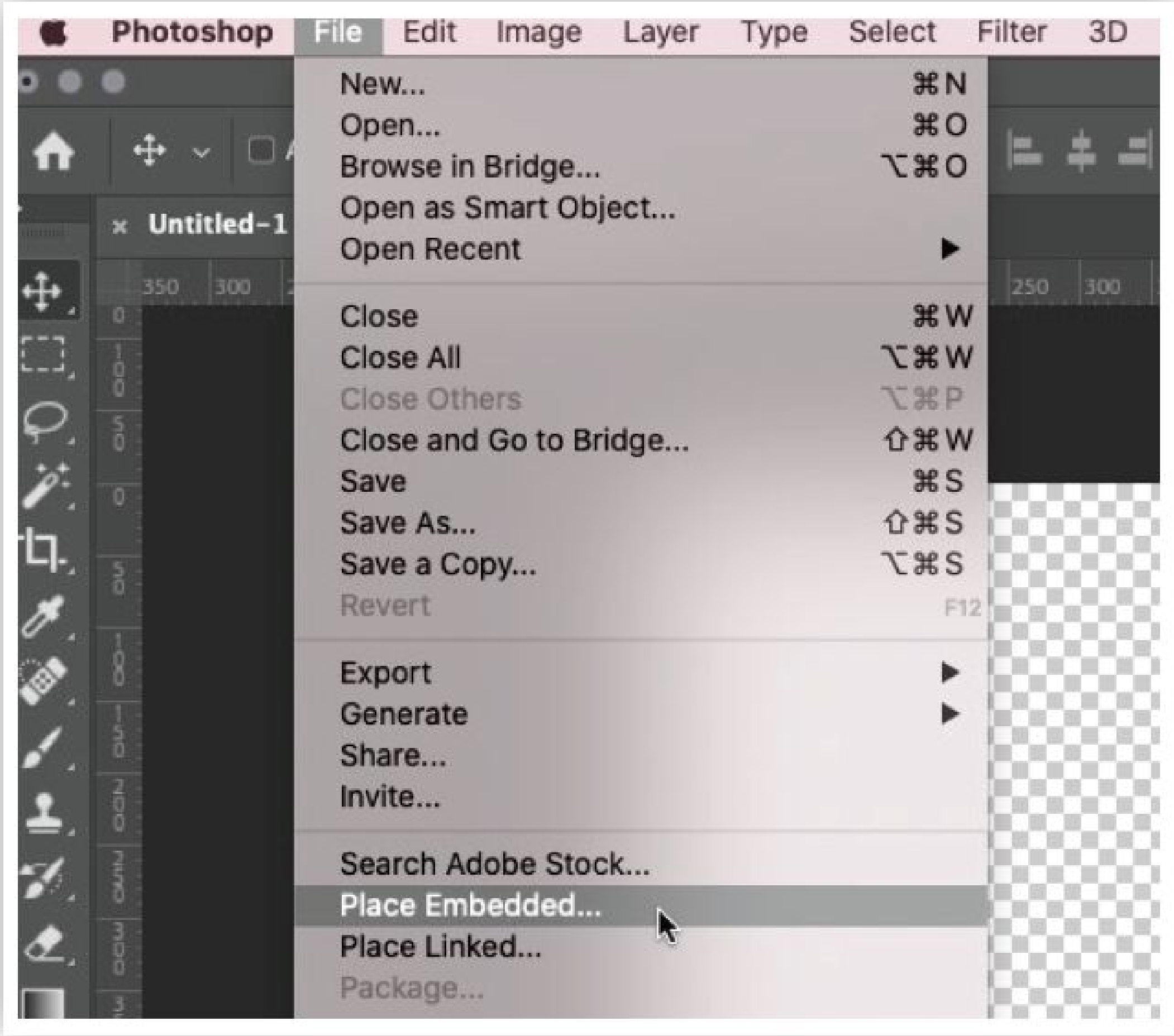
Placing and Importing Images

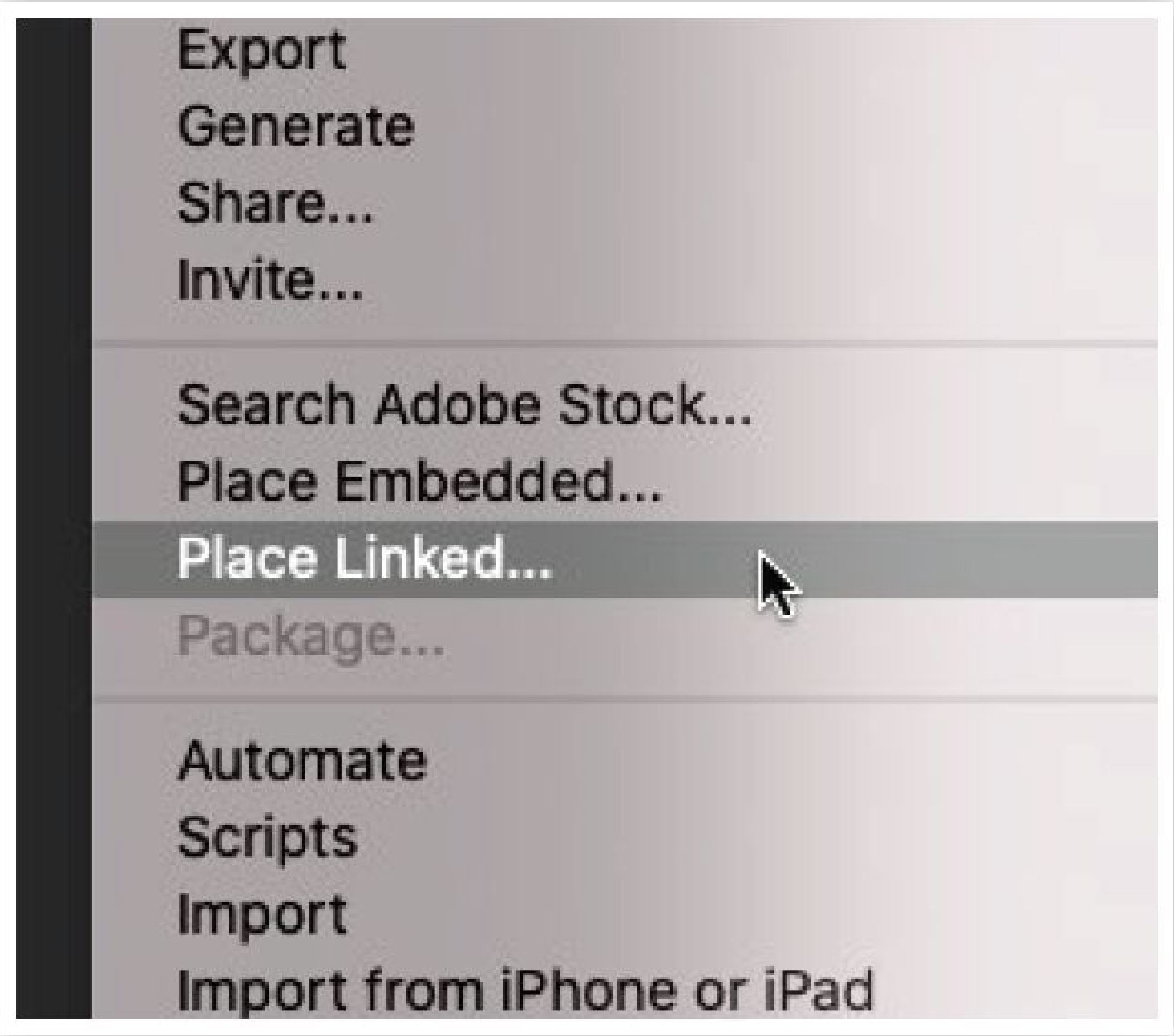
Now we will show you how to bring content into your document and make it look amazing

It's very easy to find and open a photo, work with it, and then save it again, without the need to turn it into a native Photoshop PSD file that retains all the layers and adjustments information within it. We've looked at creating new documents from scratch, so now we can take our newly created blank document, start importing images and begin the process of building a basic design with just a couple of images. As simple as this guide may appear, it is a cornerstone to what makes Photoshop so useful as an image editing and digital manipulation tool for photographers and designers alike. We will use this tutorial to get used to bringing in images and working with them on their layers.





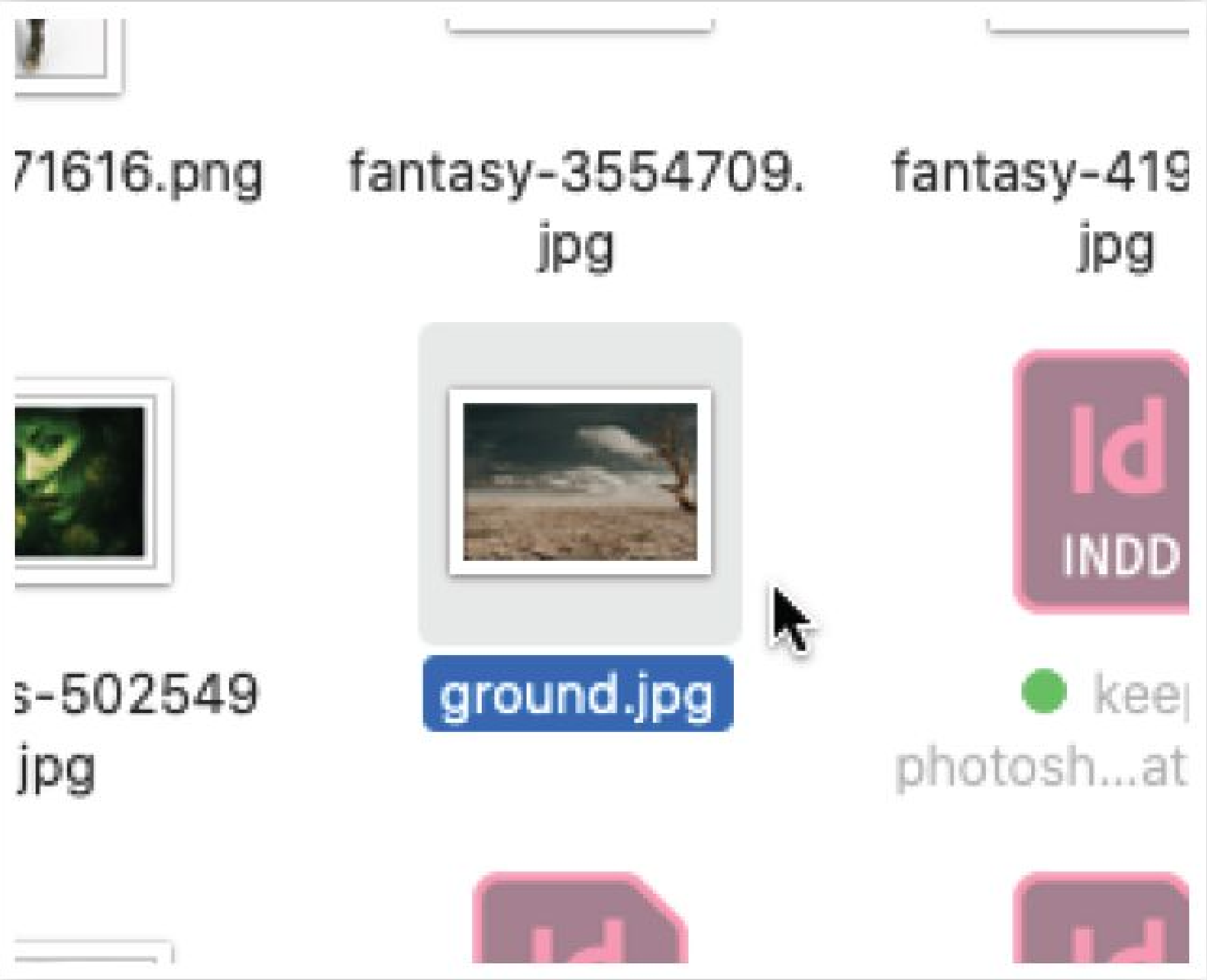

Photoshop
File
Edit
Image
Layer
Type
Select
Filter
3D
New...
Open...
Browse in Bridge...
Open as Smart Object...
Open Recent
Close
Close All
Close Others
Close and Go to Bridge...
Save
Save As...
Save a Copy...
Revert
Export
Generate
Share...
Invite...
Search Adobe Stock...
Place Embedded...
Place Linked...
Package...

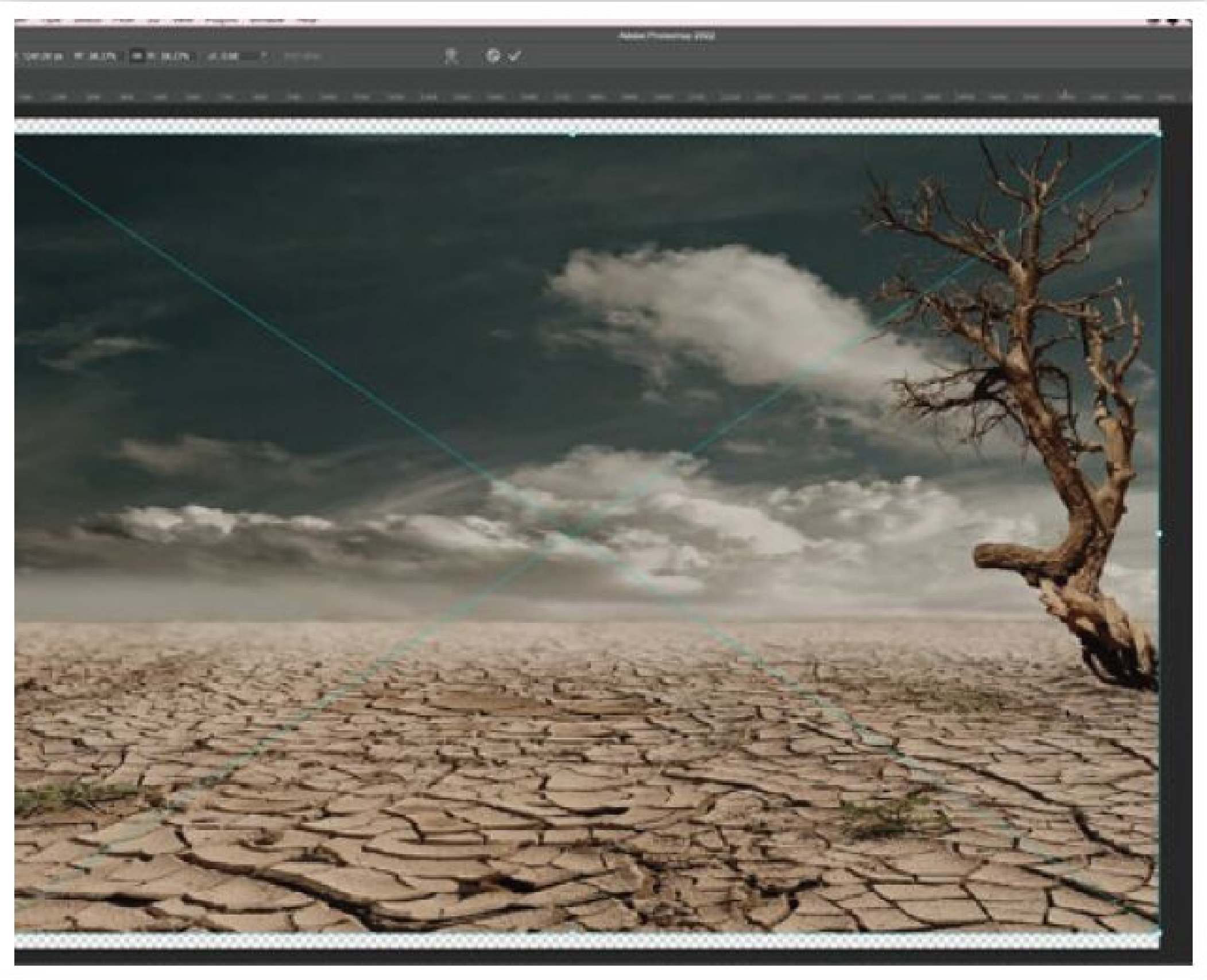

Export
Generate
Share...
Invite...
Search Adobe Stock...
Place Embedded...
Place Linked...
Package...
Automate
Scripts
Import
Import from iPhone or iPad

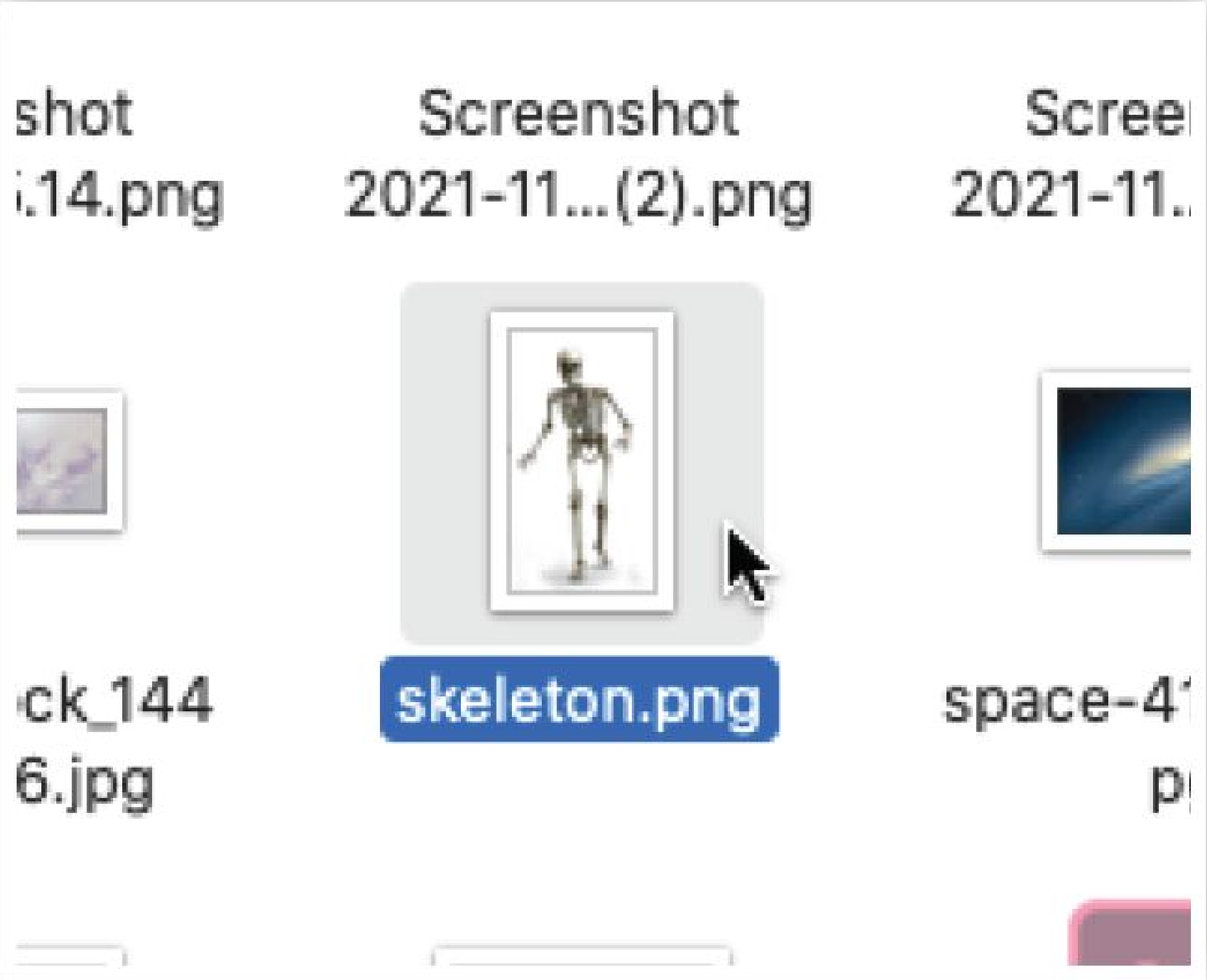
01 Opening a single image is a fairly simple process, which Photoshop makes even easier thanks to the number of ways you can interact with your files before opening them. Now, having made a blank document to your requirements, we'll go a step further and populate it.

02 To begin, a quick word about the two methods on offer for imported images. You can use the Place Embedded option, which embeds images as Smart Objects that can be edited independently of your active document, but are still contained within it.

03 Secondly, you have the Place Linked option. This means you have an image that once placed in your document retains a link to the original file that you placed. Now, if you edit the original image, the next time you look at your document containing that image, it will update to the latest saved version.


71616.png
fantasy-3554709.jpg
fantasy-419
jpg
Id
INDD
s-502549
jpg
ground.jpg
kee
photosh...at

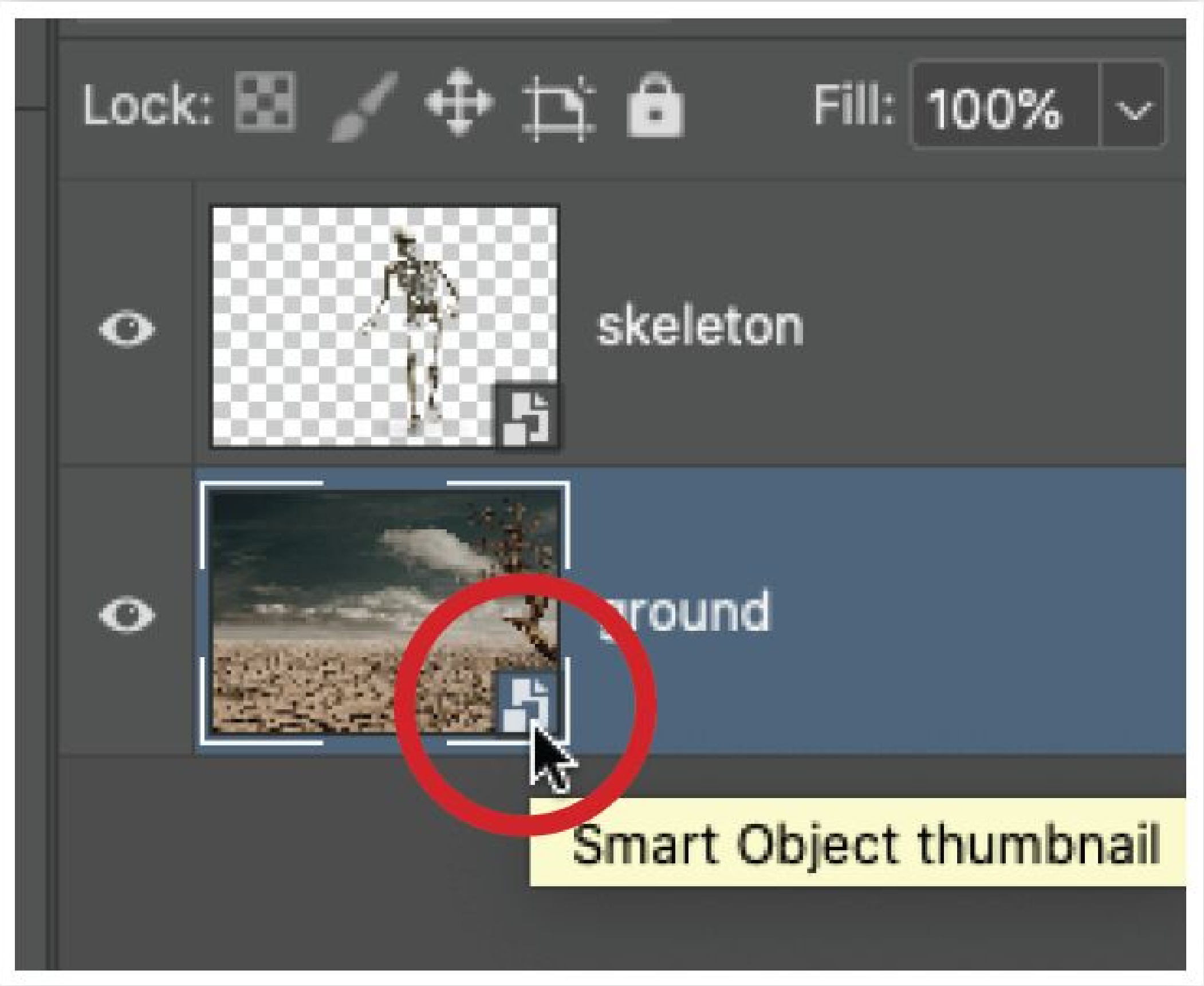


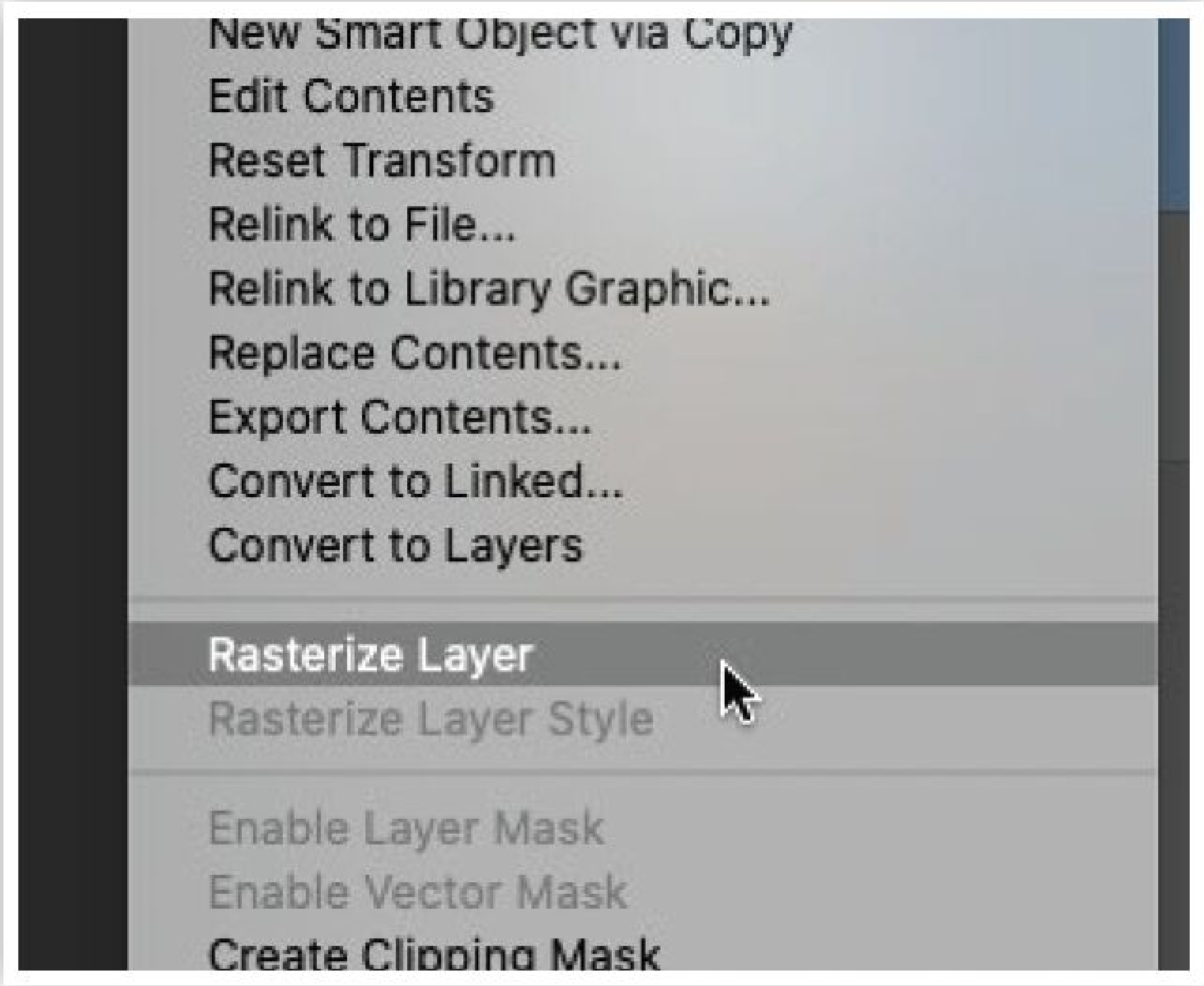

shot
.14.png
Screenshot
2021-11...(2).png
Scree
2021-11..
ck_144
6.jpg
skeleton.png
space-4
p

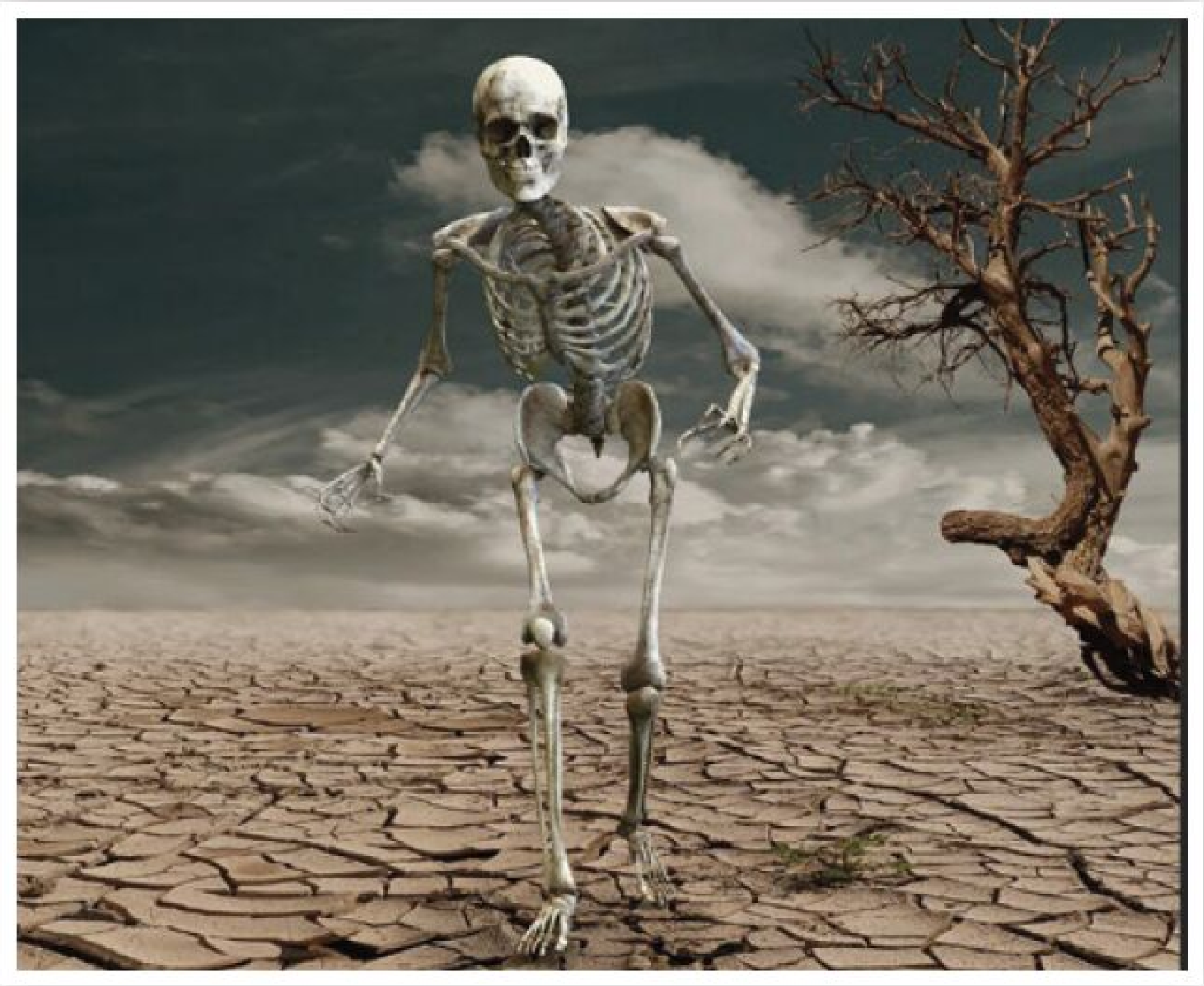
04 Here, we have used File > Place Embedded. Start by navigating to the folder with the first image you're using, highlight it and then click the Place button, or simply double-click it to open it in the document on its blank layer. Note the layer name changes to the image name.

05 You can now move, scale and rotate the image before you commit to finally placing it on its layer. Click and drag the cover control points to scale the image to fully fill the document. Then you can hit Enter on your keyboard to commit the changes.

06 Go to File > Place Embedded again and this time choose a second image. We have a skeleton character we want to bring in to a new layer. Place this new image, and then use the control points to scale the image and also drag it to your preferred position.


Lock:
Fill: 100%
skeleton
ground
Smart Object thumbnail


New Smart Object via Copy
Edit Contents
Reset Transform
Relink to File...
Relink to Library Graphic...
Replace Contents...
Export Contents...
Convert to Linked...
Convert to Layers
Rasterize Layer
Rasterize Layer Style
Enable Layer Mask
Enable Vector Mask
Create Clipping Mask



07 Both images, since they are embedded, are placed as Smart Objects. If you look in the lower right corner of their thumbnail, you'll see the small icon that denotes a placed Smart Object. If you are happy with them, you can convert them to standard pixels.

08 Right-Click on your layers to call up the Context menu. Look down the list and you will see the Rasterize Layer option. When you select this, you will convert each of the Smart Objects into normal pixel-based images that now behave like standard photos.

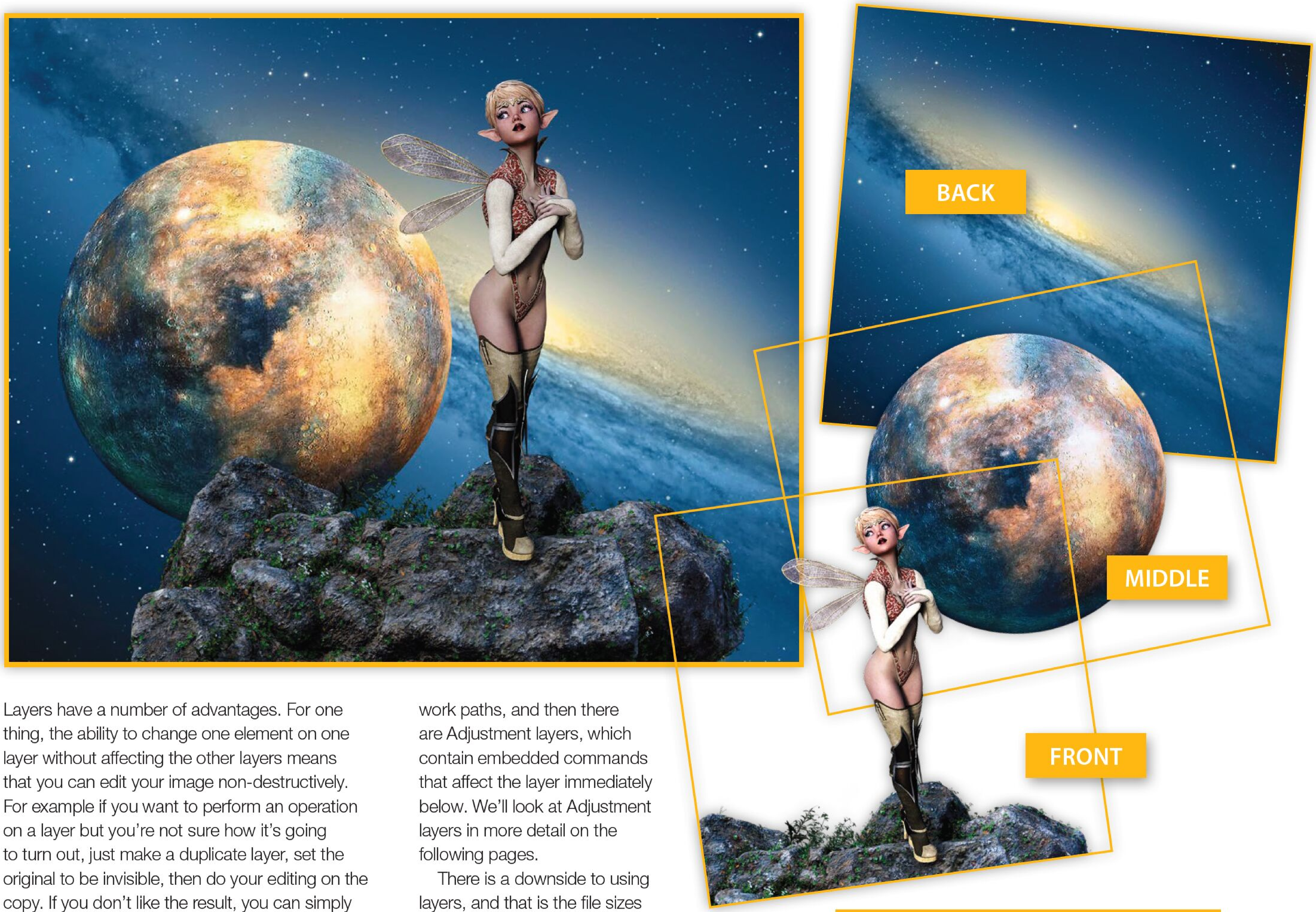
09 You have created a basic document with two layers. It might seem quite simple, but this is what makes Photoshop so versatile and offers you the chance to take various image elements and combine them in amazing new ways to create stunning artworks.

Using Layers

Understanding layers is fundamental to Photoshop editing

The concept of Layers was first introduced with Photoshop 3.0 in 1994, and has become the very core of Photoshop image editing, as well as being imitated by every other image editing program on the market. Layers are exactly what they sound like; the elements of the image are stacked up and displayed in descending order. Since layers can include transparency, lower layers can be visible through higher layers.

Effects, adjustments and operations can be applied to individual layers, or to all the layers at once. You can: move layers around relative to one another, change the order of layers in the stack, turn layers on or off and delete layers, without affecting the others. Some people seem to have a hard time getting their head around the concept of layers, so the best way to think of them is as a pile of glass panels with the elements that make up the image painted onto them, with you looking down on them from above to see how they stack up.



Layers have a number of advantages. For one thing, the ability to change one element on one layer without affecting the other layers means that you can edit your image non-destructively. For example if you want to perform an operation on a layer but you're not sure how it's going to turn out, just make a duplicate layer, set the original to be invisible, then do your editing on the copy. If you don't like the result, you can simply delete it and go back to the original.

There are four main types of layer. There are Pixel layers, which contain the graphical elements of the image. There are Text layers, which contain text information which can be edited and resized. There are Vector layers, which contain vector information such as shapes and work paths, and then there are Adjustment layers, which contain embedded commands that affect the layer immediately below. We'll look at Adjustment layers in more detail on the following pages.

There is a downside to using layers, and that is the file sizes they generate. Adding layers and the information that goes along with them massively increases the size of the file, so when you've finished editing and you want to save the picture you've created, it's usually a good idea to Flatten the image, which merges all the layers together into a single image.

USEFUL TIP

Click on a layer, press and hold the Shift key on your keyboard and click on another layer to multi-select a number of layers.

The Layer Palette

Knowing your way around the Layer palette is vital if you want to make the best use of this feature.

Blend Mode

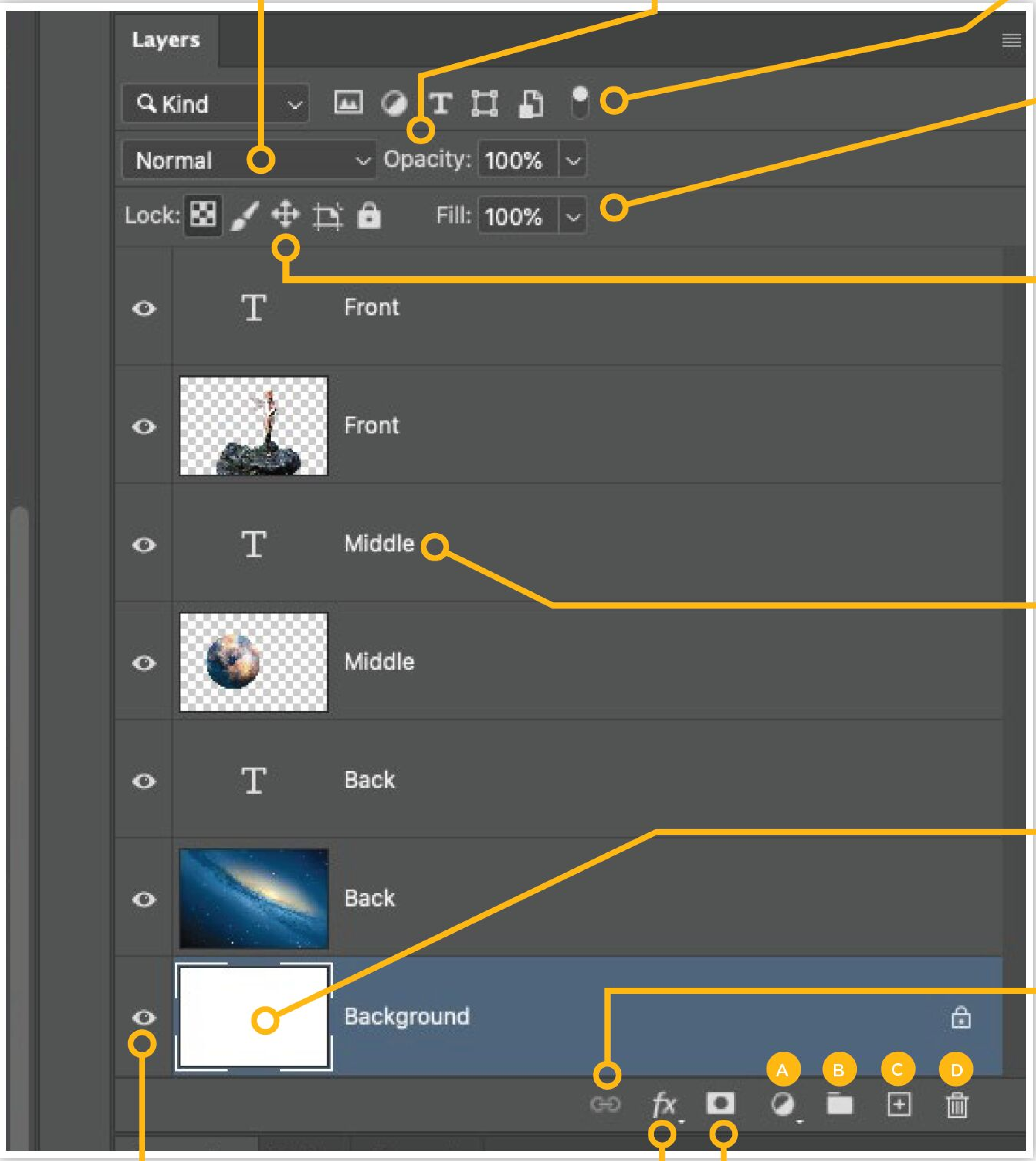
Determines how the layer interacts with the layer below it. Can be changed for every layer one by one, or for a group.

Opacity

Controls how transparent the layer is, and how much of the layer below will show through. You can use the slider or numeric value.

Layer Filters

Choose to display only one type of layer, or all of them, and by selecting the drop-down you can select the order in which you show them.



Fill

Similar to Opacity, but only works on pixel information, ignoring blending options and layer effects.

Layer Locks

By clicking on these buttons you can lock the layer from any further activity. Transparency, image pixels and position can be locked independently of each other.

Text Layer

There are several different types of layer. Text layers, not surprisingly, contain text characters.

Background

The Background layer is the default bottom layer, and always starts off locked when you open a new Photoshop document.

Link Layers

Highlight a few layers and then click this button to link the layers. Transform and Move commands will affect all linked layers.

Visibility

Clicking on the eyeball simply renders the layer and all its effects invisible. Also, Alt + left-click to view that layer on its own.

Layer Styles

This panel lets you add effects such as drop shadow, bevelled edges, inner glow, gradient overlay and much more.

Layer Mask

Add a mask to a pixel-based layer, to reveal or conceal information, using black to conceal or white to reveal.

A Adjustment Layer

An alternative to the main layer menu, and here you can add all the adjustment effects such as Levels, Brightness and Contrast and Saturation.

B New Group

Creates a new layer group, into which you can drag and drop layers, which helps you to organise layers in a big complicated composition.

C New Layer

Clicking on this button creates a new blank layer directly above the currently active layer.

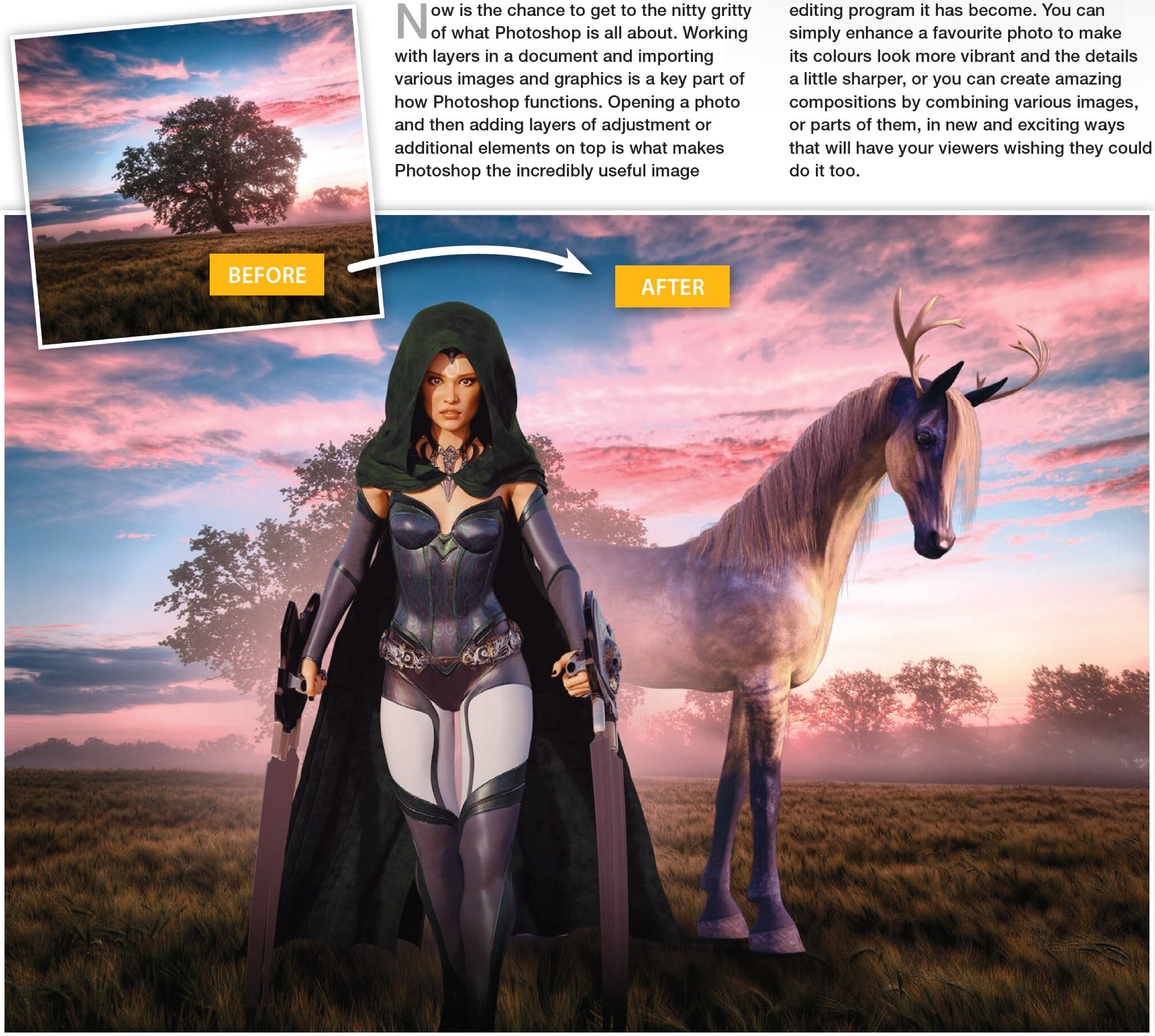
D Delete Layer

Does exactly what you'd expect it to do. Click to delete the currently active layer, or drag a layer onto the button to delete it.

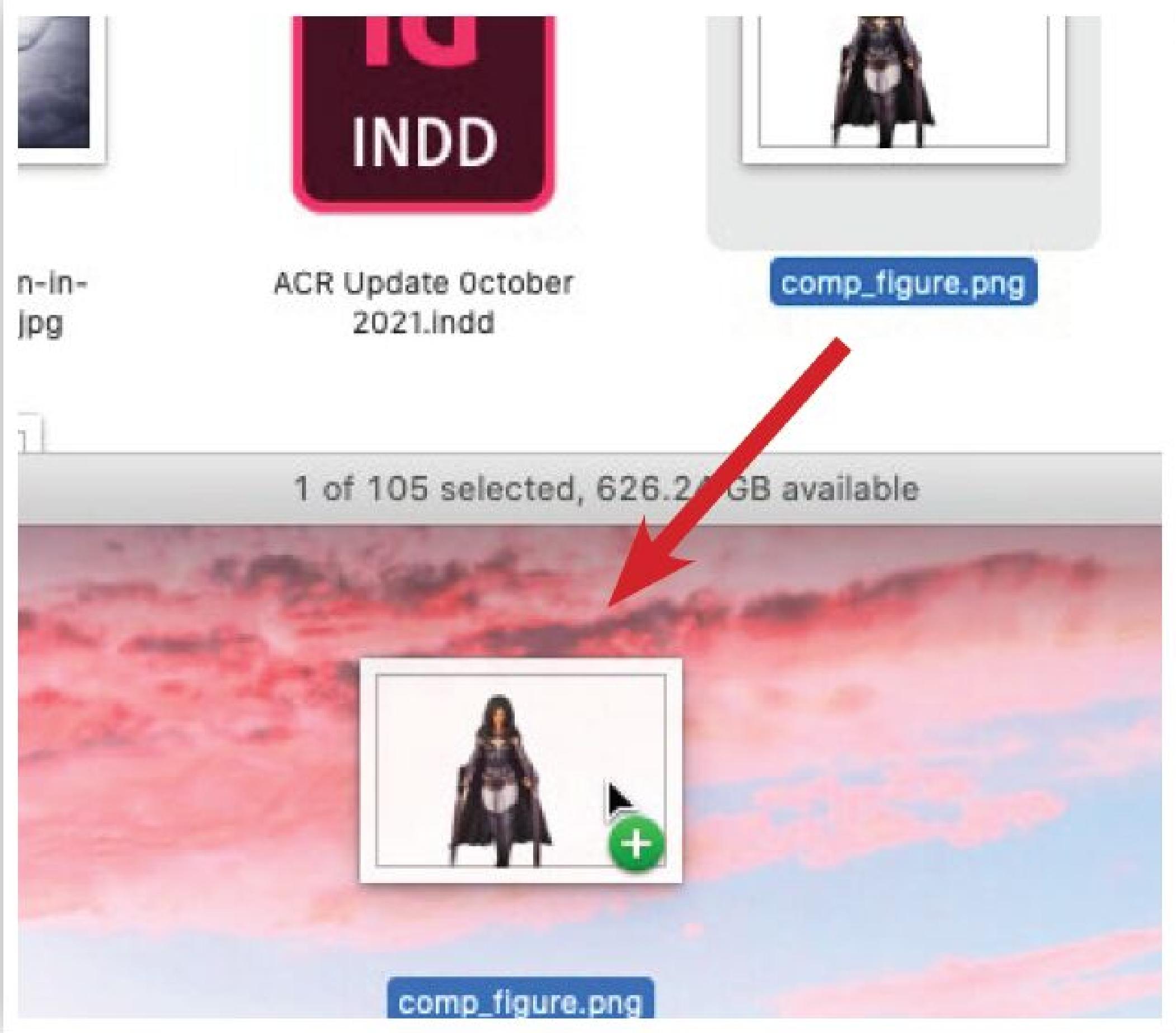
Your First Composition

This is when you discover the power of Photoshop

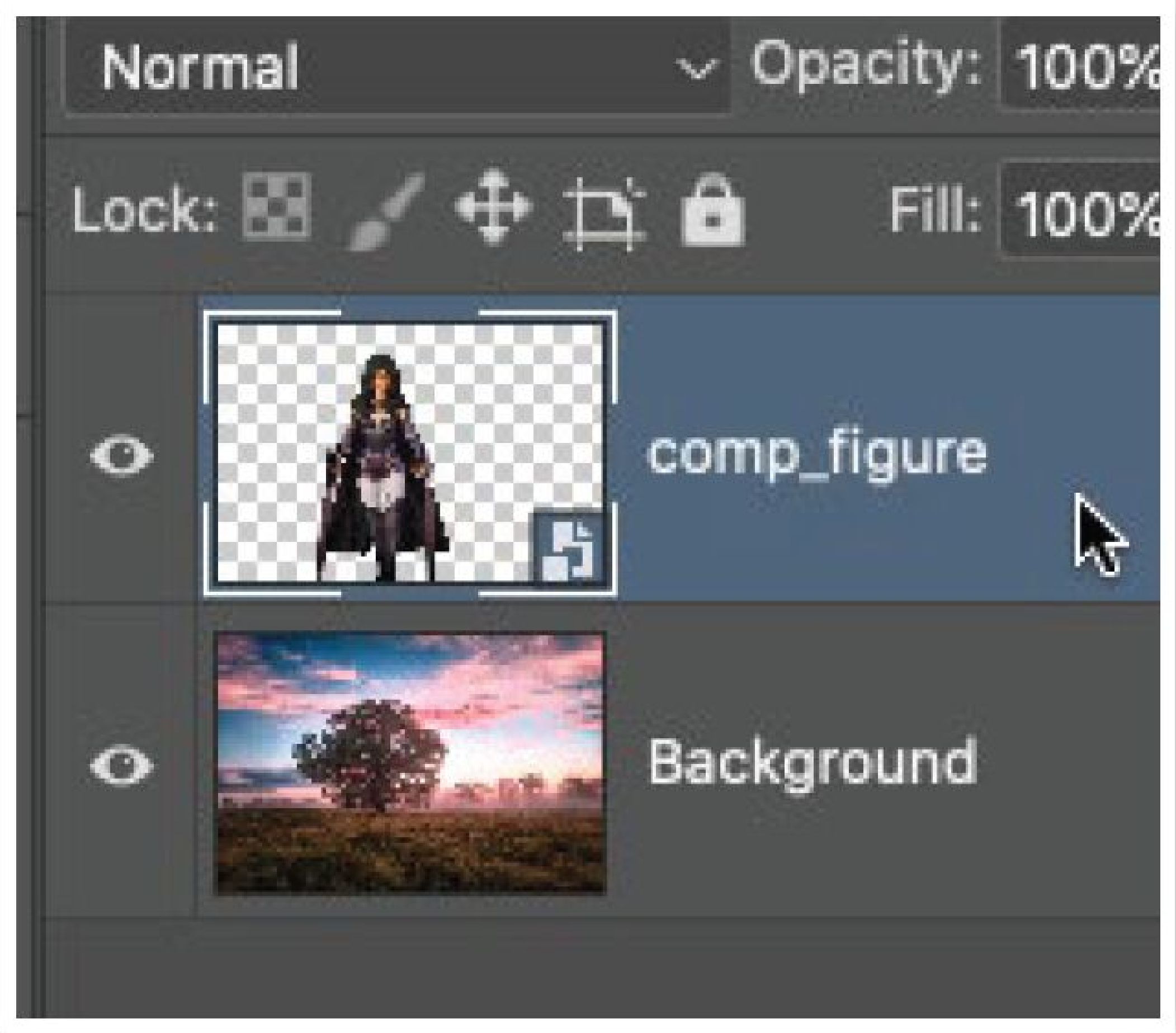
Now is the chance to get to the nitty gritty of what Photoshop is all about. Working with layers in a document and importing various images and graphics is a key part of how Photoshop functions. Opening a photo and then adding layers of adjustment or additional elements on top is what makes Photoshop the incredibly useful image editing program it has become. You can simply enhance a favourite photo to make its colours look more vibrant and the details a little sharper, or you can create amazing compositions by combining various images, or parts of them, in new and exciting ways that will have your viewers wishing they could do it too.



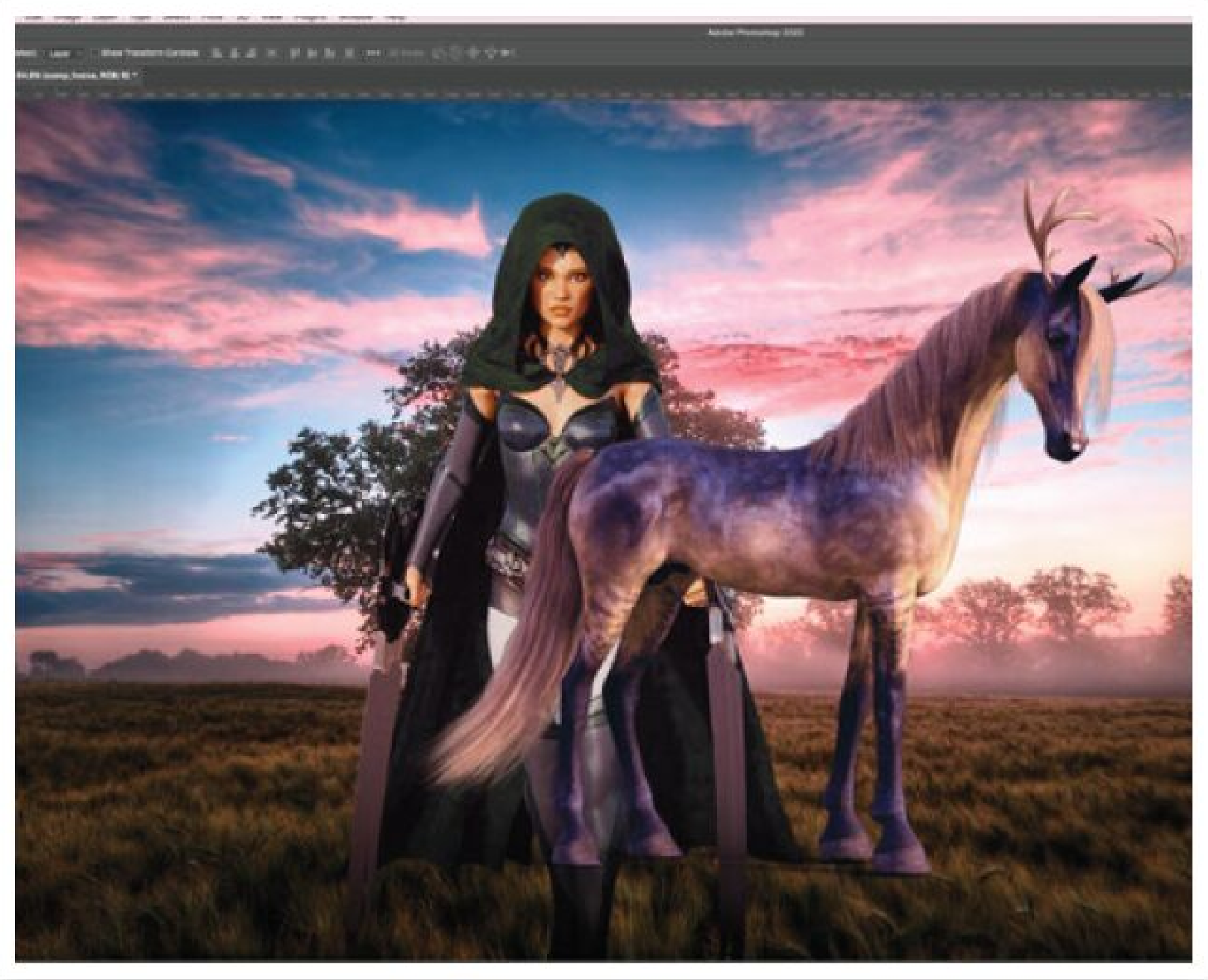
01 This new artwork starts with the opening of a base image. In this case, we chose File > Open (Cmd + O) and then navigated to where our background image was stored. We have chosen a pasture background image for our new composition. Now we can add more elements.


INDD
n-in-
jpg
ACR Update October 2021.indd
comp_figure.png
1 of 105 selected, 626.24 GB available
comp_figure.png

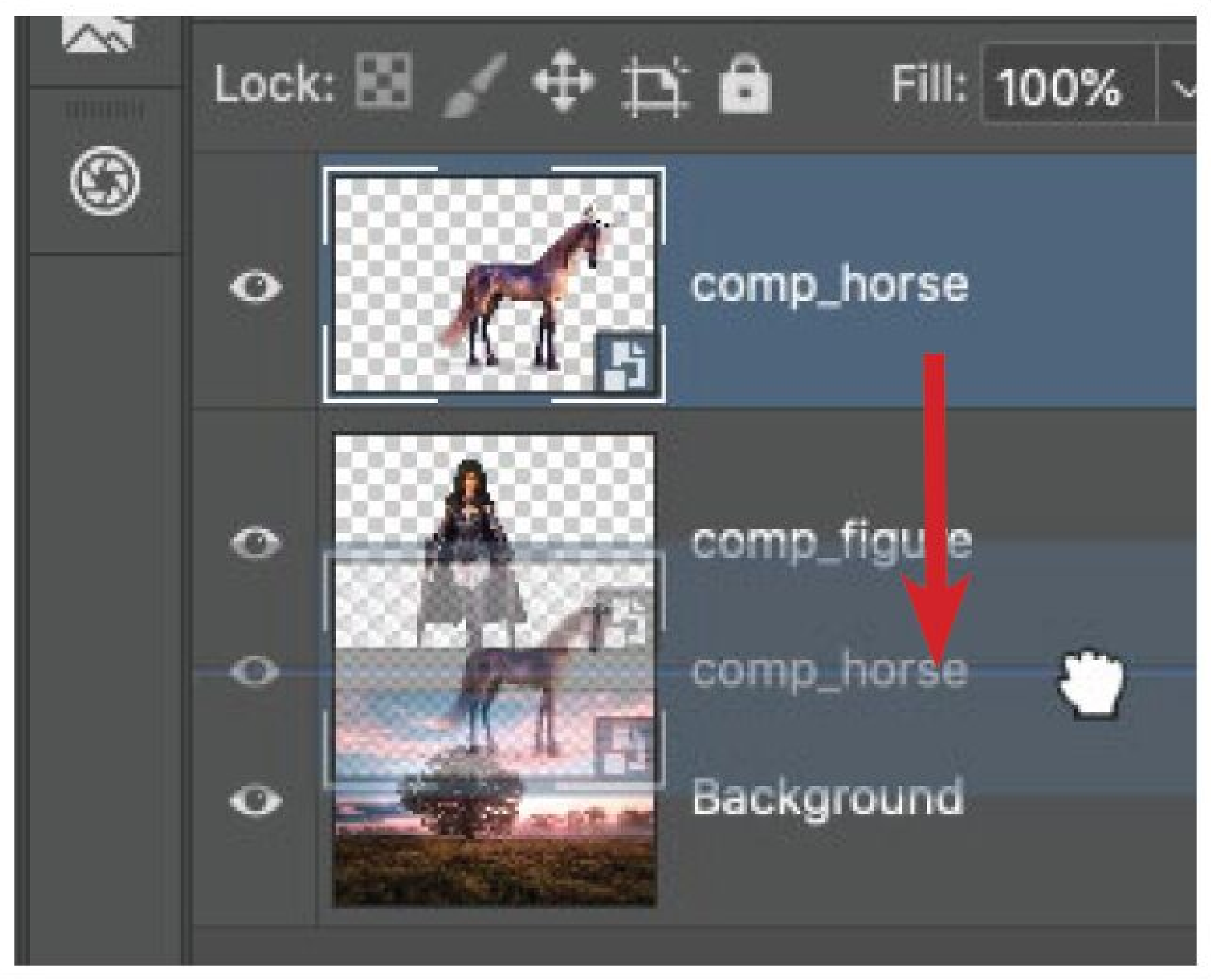
02 If you wanted to, you can keep a browser window open on your computer that contains your images and, rather than going through the open and find procedure, you can simply bring the browser window to the front and drag your next image on top on the base image.


Normal
Opacity: 100%
Lock:
Fill: 100%
comp_figure
Background

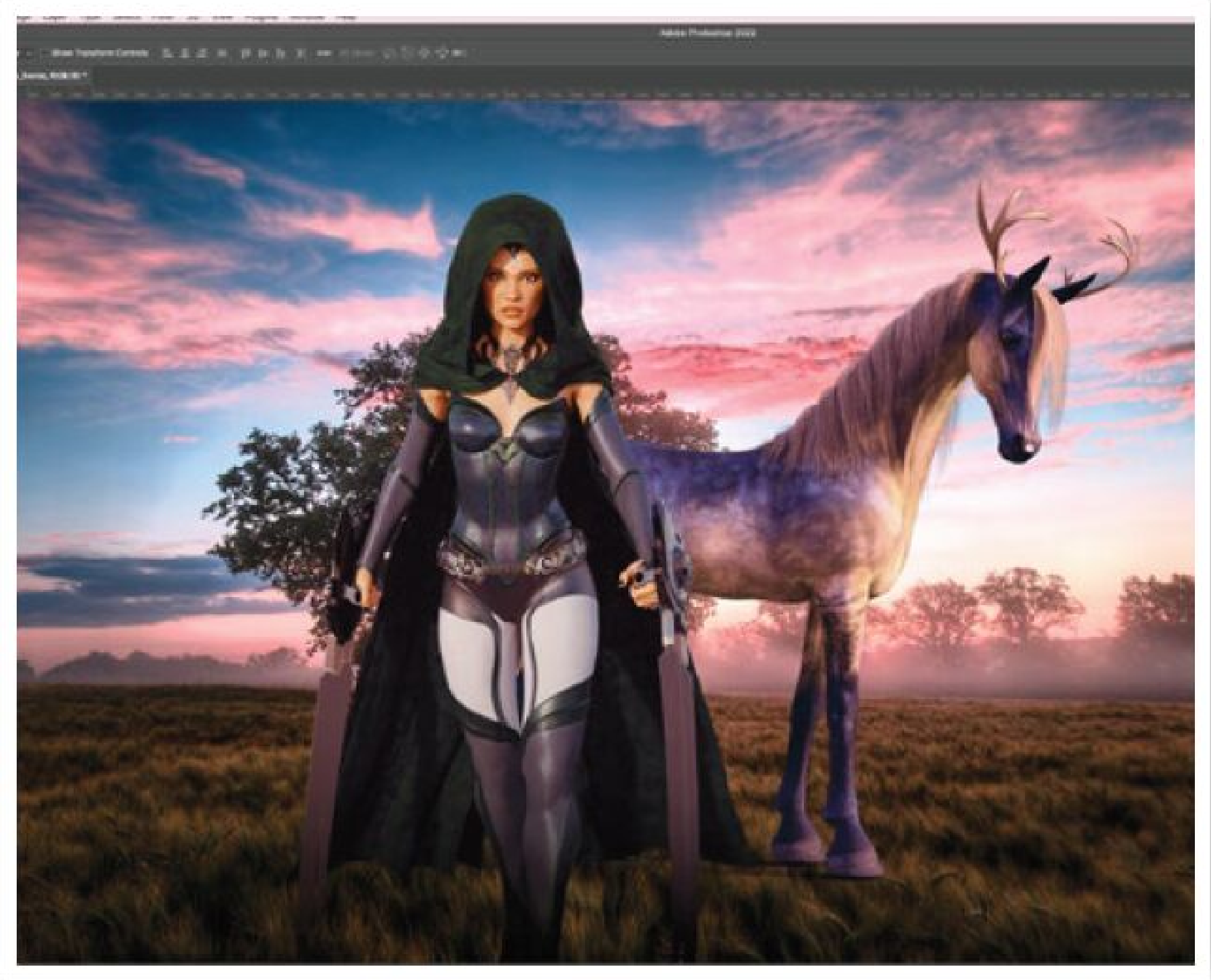
03 This means our dropped image will open on its own layer, which will be named after the title of the file. In this example, an image of a warrior princess now sits above our base image on a new layer. Next, we need a little more background interest to flesh out the scene.



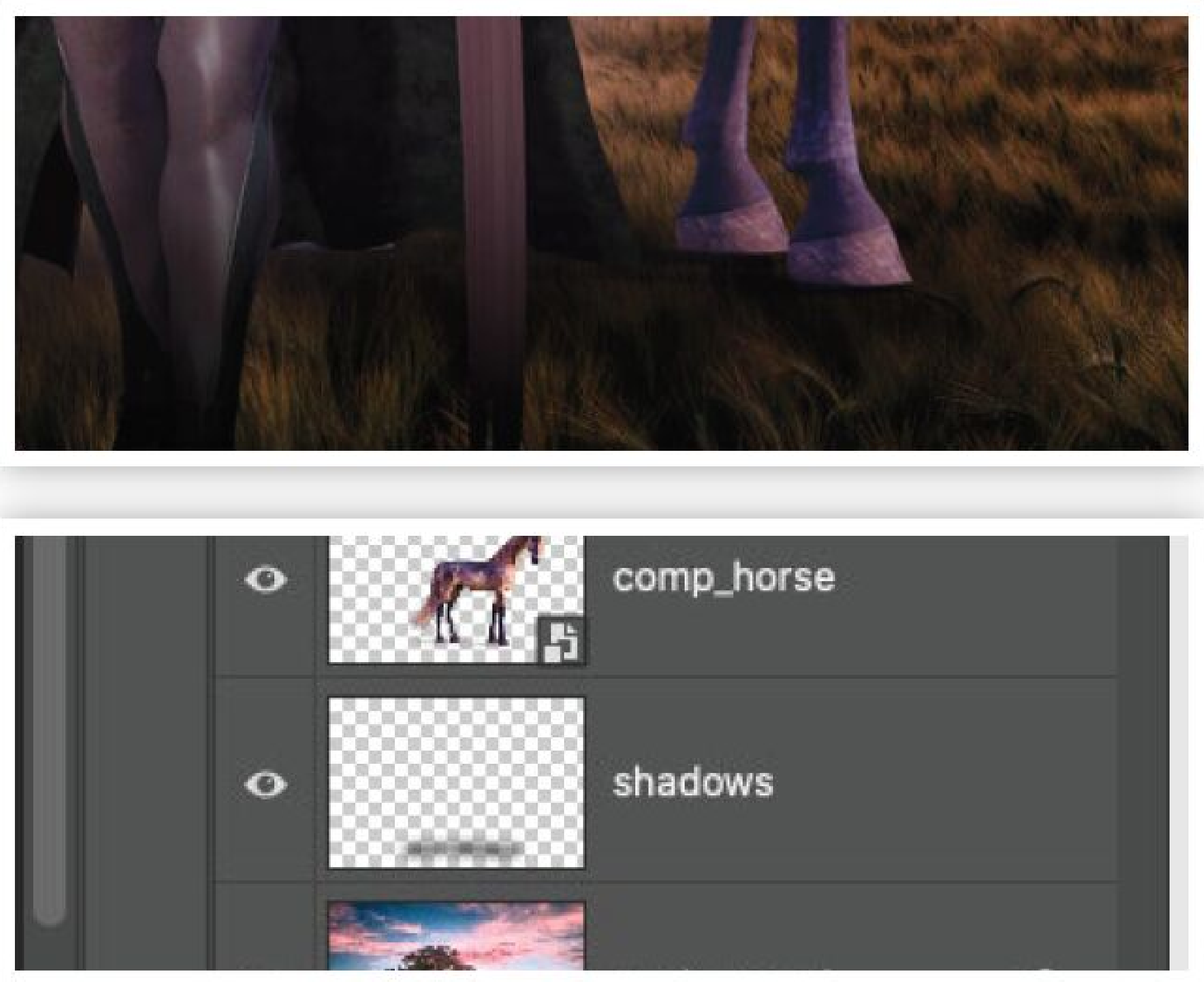
04 Using the same drag and drop technique, we add a mythical creature that sits quite nicely in the background. There is one problem however; the horse now appears to be covering our foreground character. This is when layers become so useful.


Lock:
Fill: 100%
comp_horse
comp_figure
comp_horse
Background

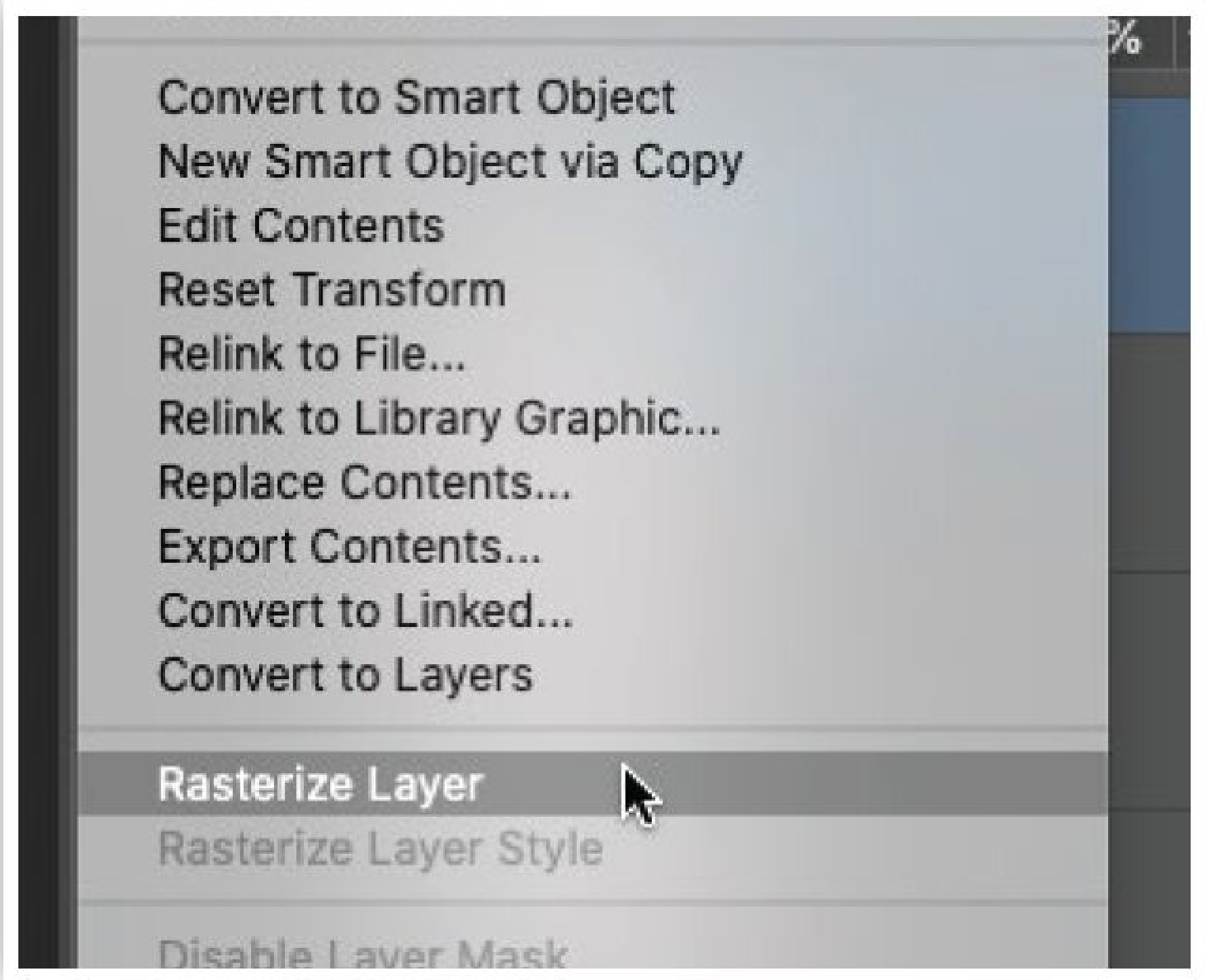
05 By clicking and holding the mouse over the layer containing the horse, we can actually drag that layer so that it sits underneath the layer containing the princess. Now, with our figure in the foreground and the horse behind her, the image makes more sense.



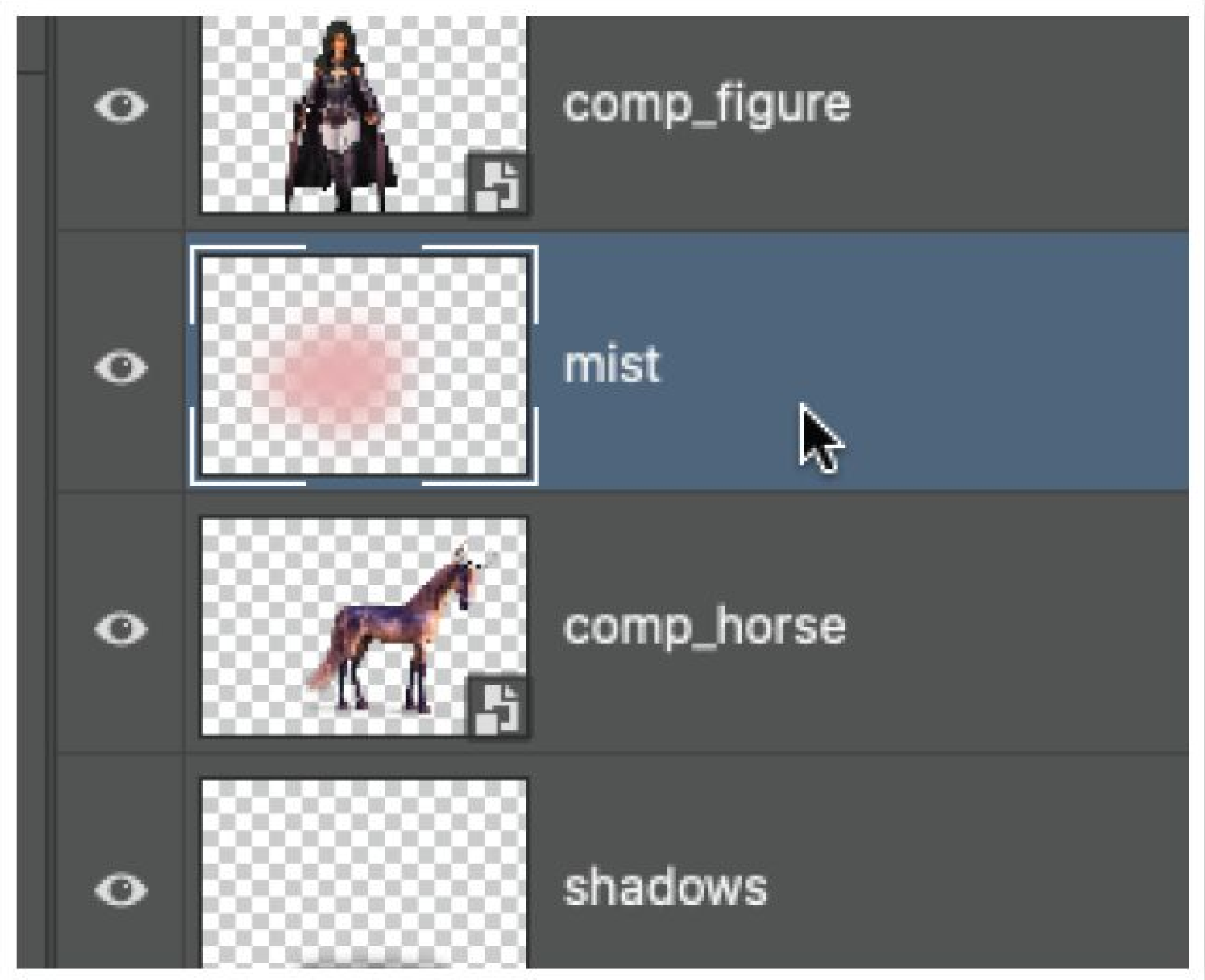
06 Since each element is on a separate layer, they can be edited and manipulated independently of each other. For instance, the horse might look better if it were the other way around, so the layer could be flipped horizontally for a different composition if you wanted.


comp_horse
shadows

07 If you go to the layer options palette, you can click on the Create A New Layer button and then add a layer between the horse and the base image called ‘shadows’. Here you can use a soft black brush to add some shadow to anchor the creature to the ground more realistically.


Convert to Smart Object
New Smart Object via Copy
Edit Contents
Reset Transform
Relink to File...
Relink to Library Graphic...
Replace Contents...
Export Contents...
Convert to Linked...
Convert to Layers
Rasterize Layer
Rasterize Layer Style
Disable Layer Mask

08 Since both the figure and the horse are Smart Objects, when we are happy with their final placement, orientation and size, we right-click on them, choose Rasterize Layer from the menu and convert them to normal pixel images in each of their layers.

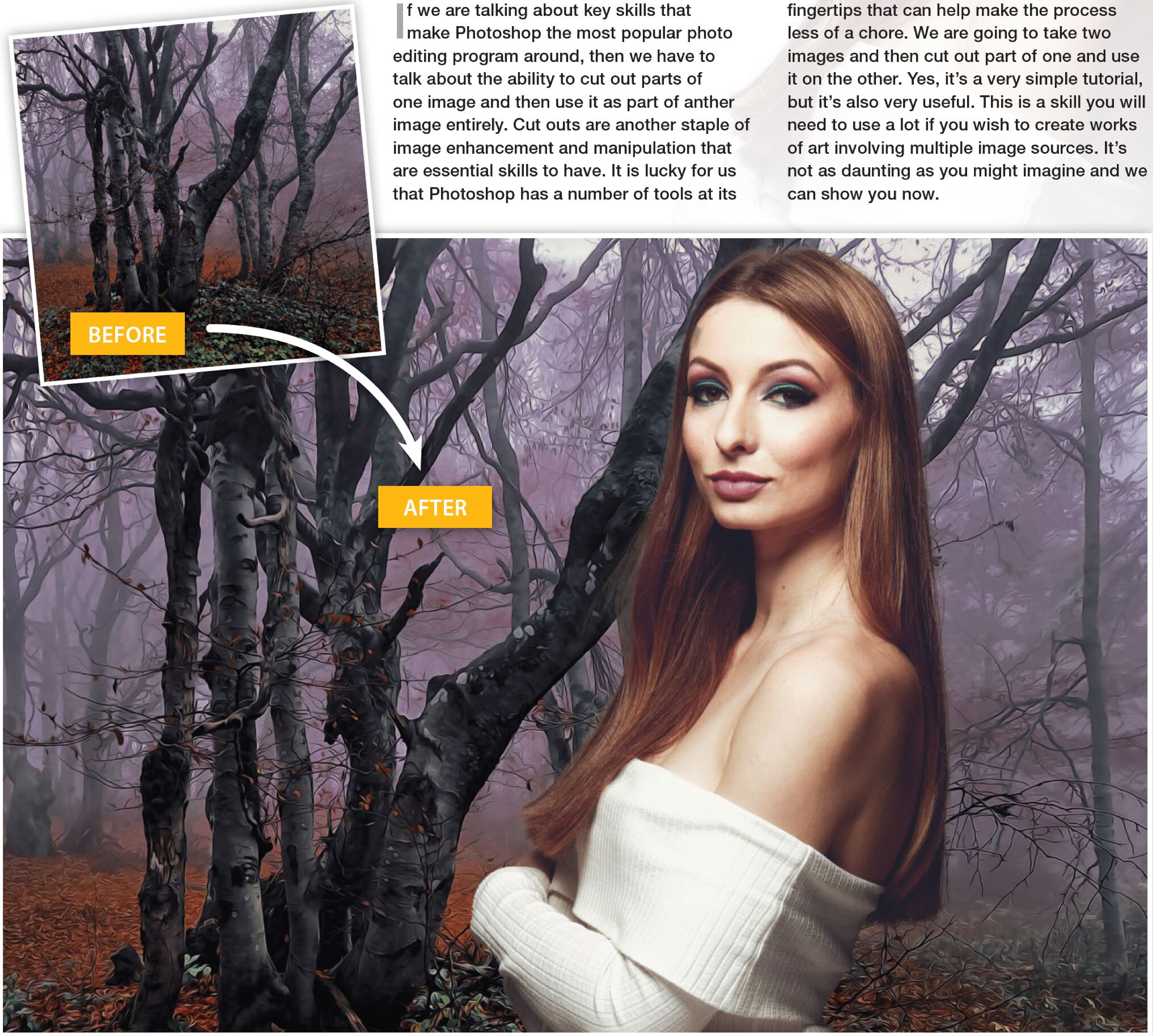

comp_figure
mist
comp_horse
shadows

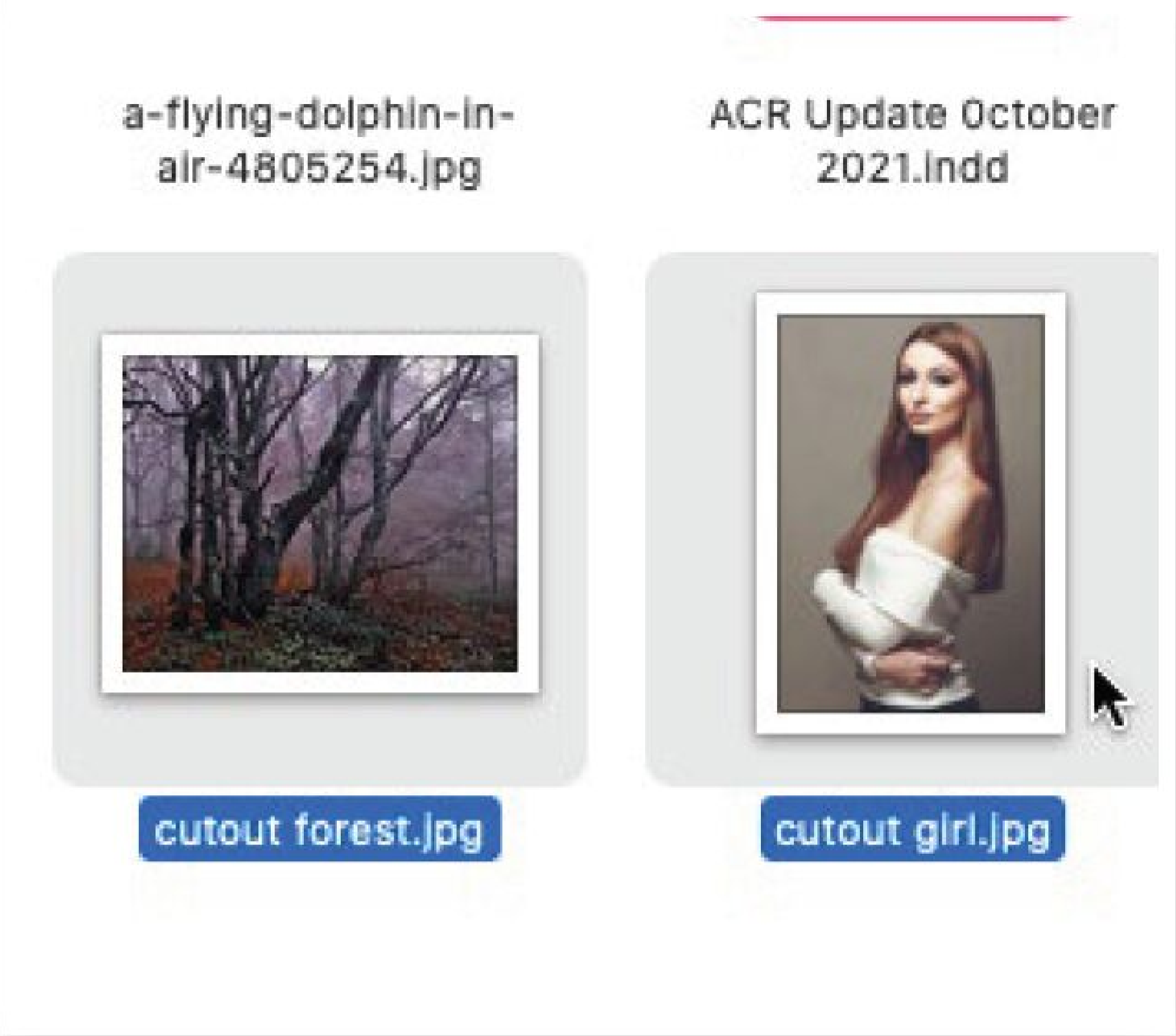
09 One final addition for this example is a new layer named ‘mist’, which is placed between the princess and the horse. This layer of mist contains white brush marks and then, to complete this dramatic composition, its Opacity can dropped to about 45%.

Your First Cut Out

Learn how to cut out parts of one image to use on another

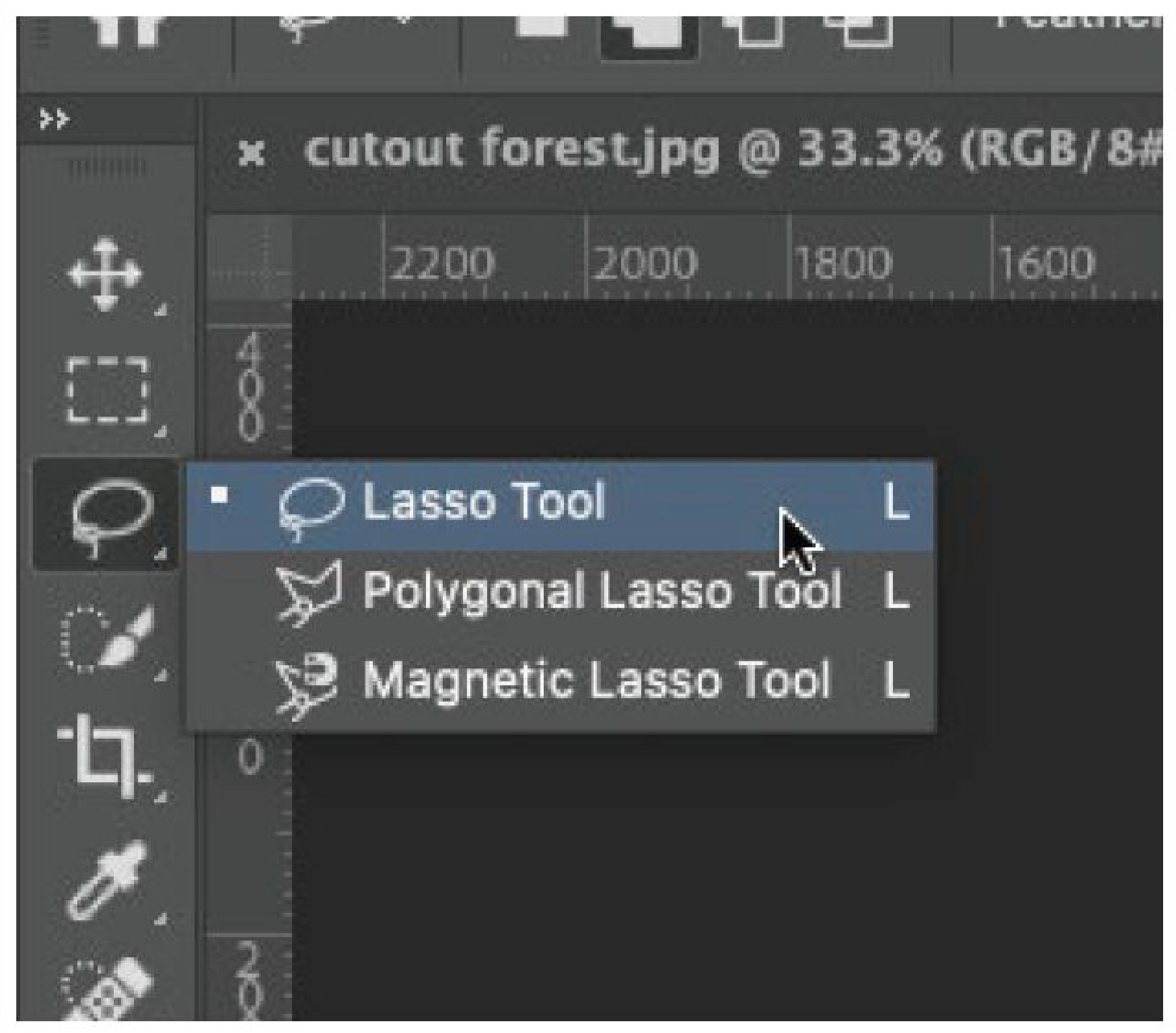
If we are talking about key skills that make Photoshop the most popular photo editing program around, then we have to talk about the ability to cut out parts of one image and then use it as part of anther image entirely. Cut outs are another staple of image enhancement and manipulation that are essential skills to have. It is lucky for us that Photoshop has a number of tools at its fingertips that can help make the process less of a chore. We are going to take two images and then cut out part of one and use it on the other. Yes, it's a very simple tutorial, but it's also very useful. This is a skill you will need to use a lot if you wish to create works of art involving multiple image sources. It's not as daunting as you might imagine and we can show you now.



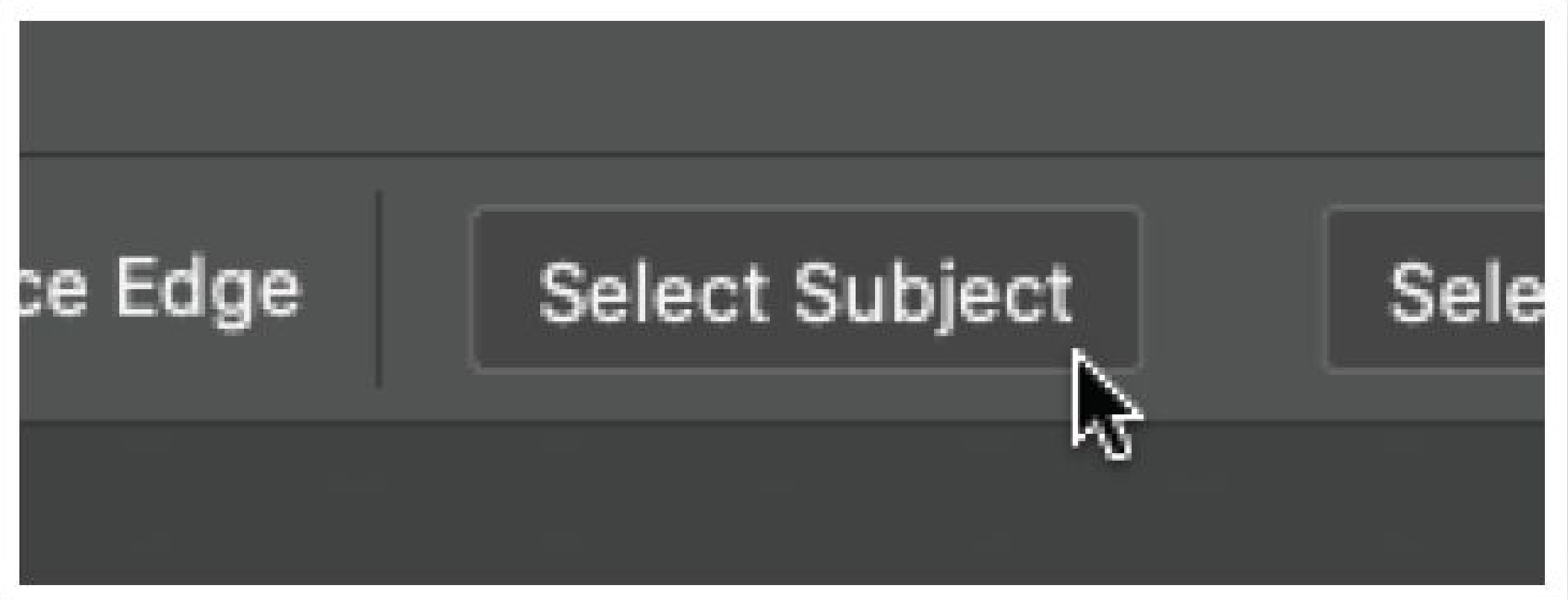

a-flying-dolphin-in-air-4805254.jpg
ACR Update October 2021.indd
cutout forest.jpg
cutout girl.jpg

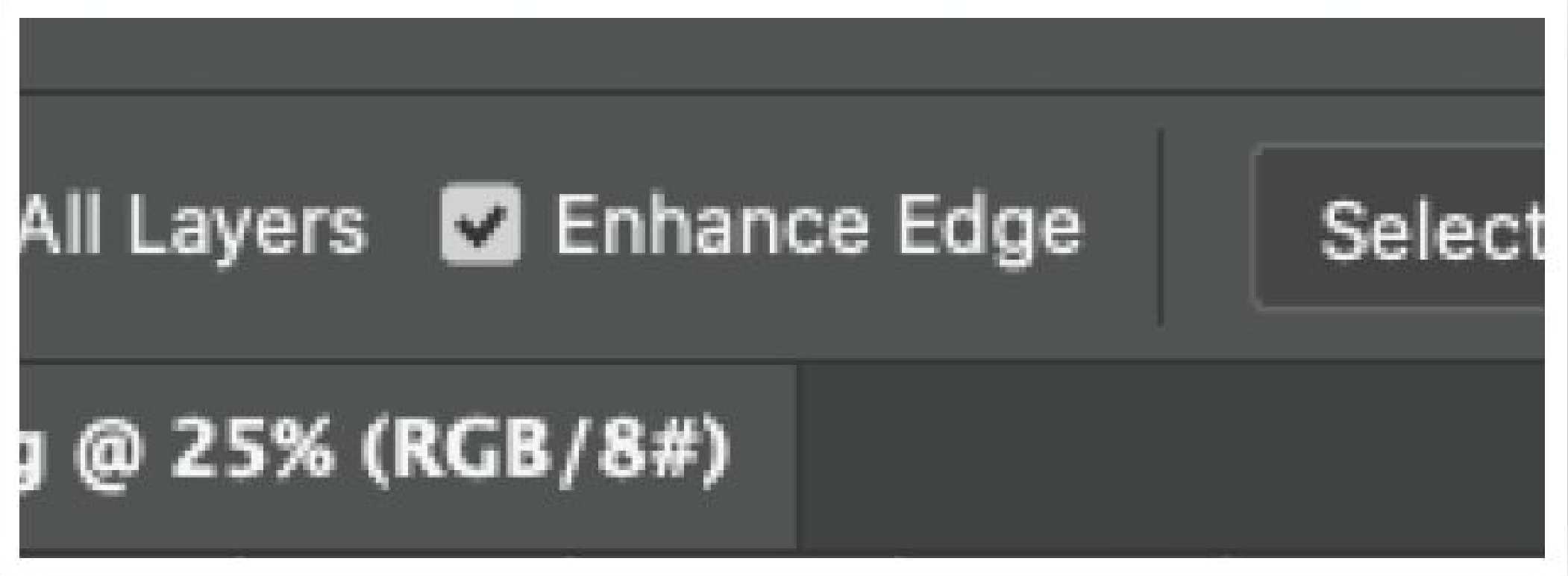
01 We have gone to File > Open and then navigated to a folder containing the two images we want to combine. They consist of a shot of a model along with a very moody woodland shot we want to use as a backdrop. We select both and then click on Open to get started.

02 We need to concentrate on the girl's image first since we want to remove her from her background. This image has one immediate benefit in that, for the most part, the girl's outline is reasonably well defined against the lighter colours of the background she is pictured front of.

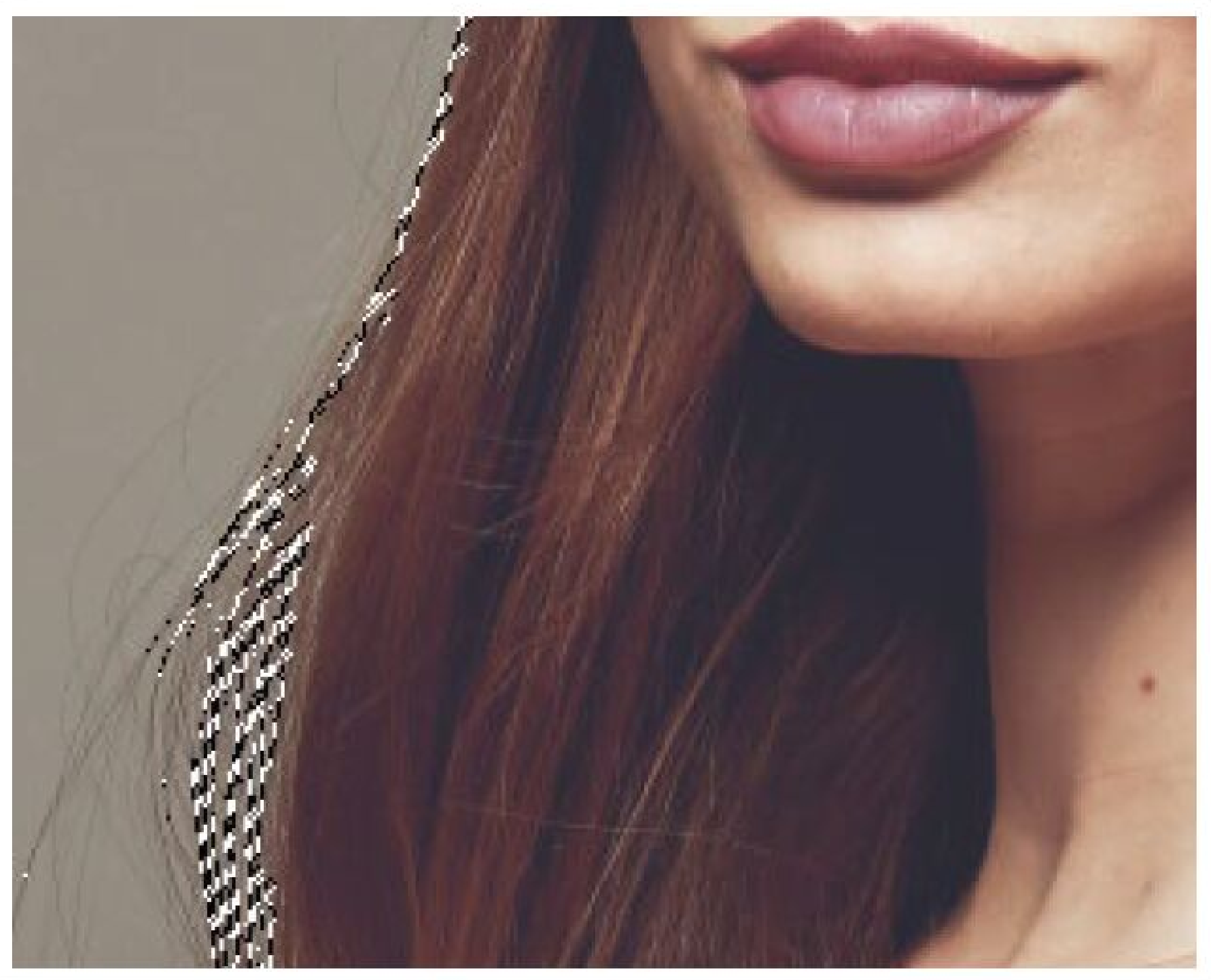

cutout forest.jpg @ 33.3% (RGB/8#
2200
2000
1800
1600
Lasso Tool L
Polygonal Lasso Tool L
Magnetic Lasso Tool L

03 We could choose the Lasso tool (L) and try to draw freehand around the outline of the girl. This can be a time-consuming, tricky and relatively inaccurate way to do it when there are other tools available to us in Photoshop's comprehensive selection arsenal.

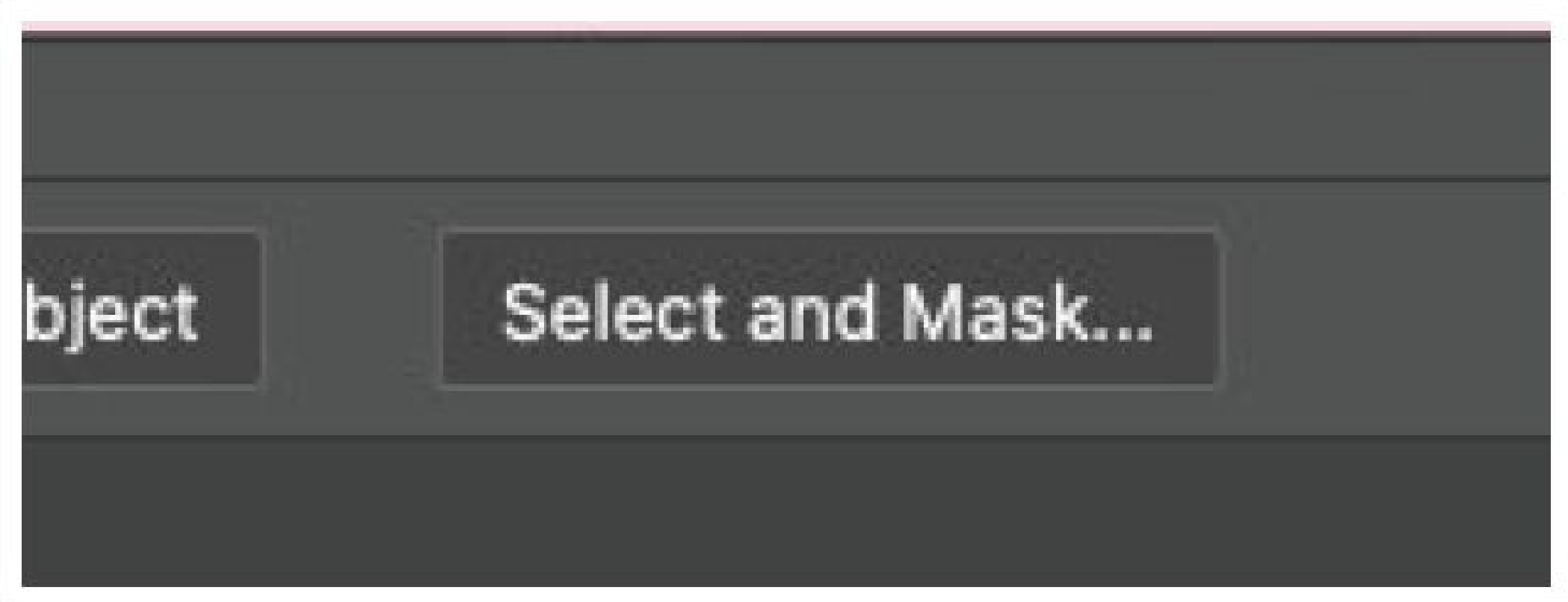

ce Edge
Select Subject
Sele

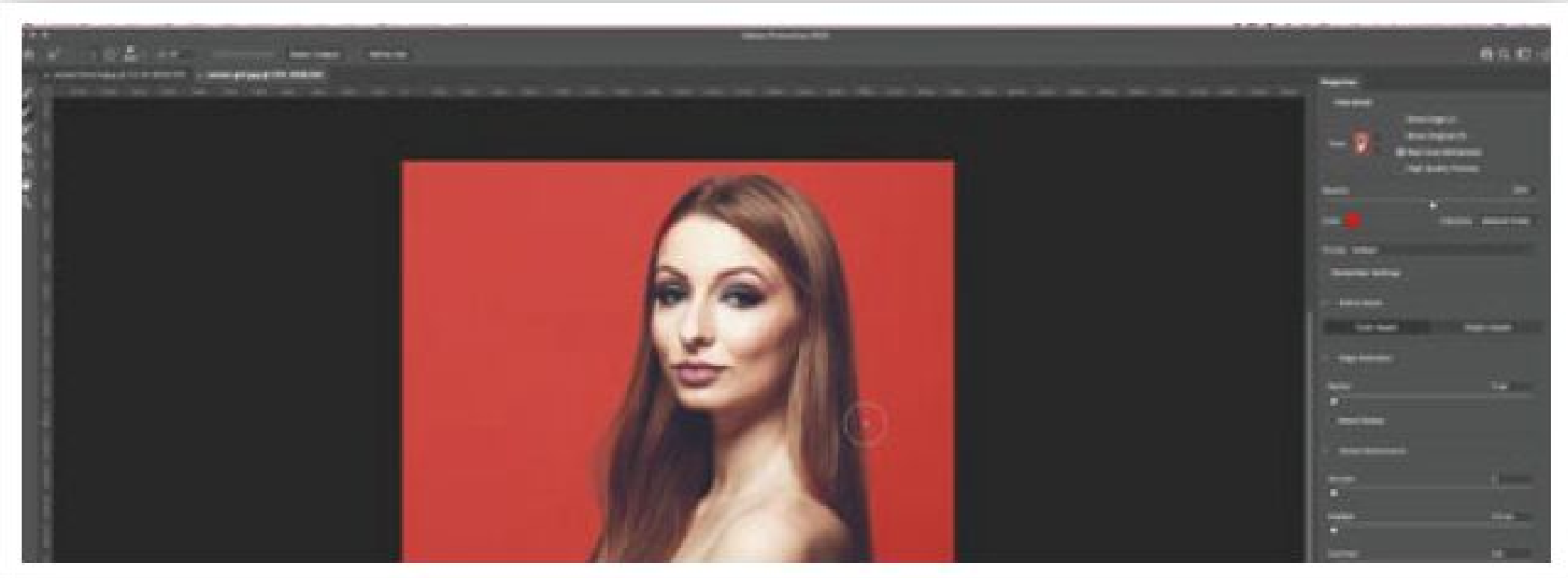

All Layers
☑ Enhance Edge
Select
@ 25% (RGB/8#)

04 In this example, the Quick Selection tool (W) could be a better option, but since this is a recently updated version of Photoshop, there are newer selection tools that might be even better. The Select Subject button in the tool options bar is just the ticket.

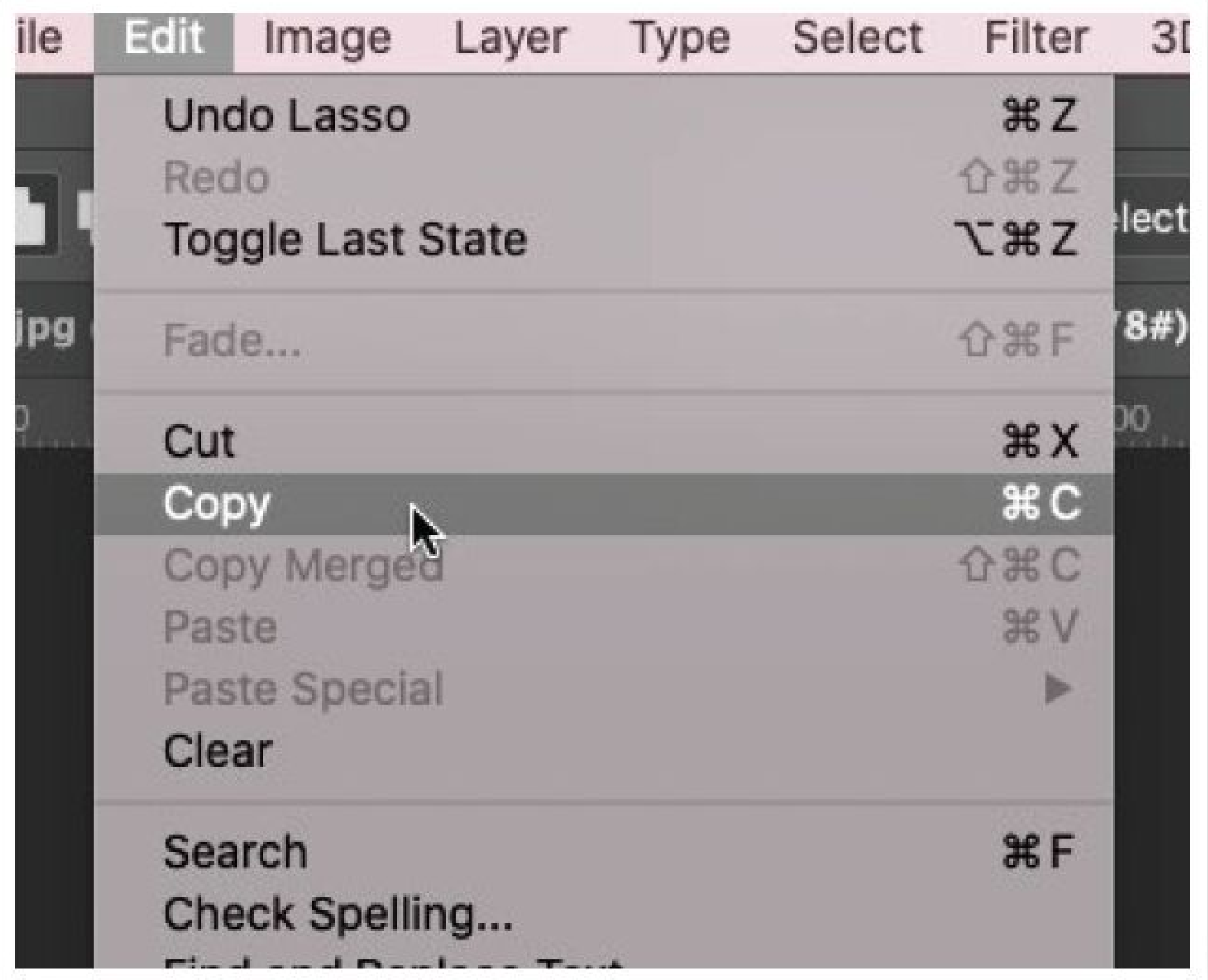


05 The Select Subject tool will automatically scan and analyse the image for you and then it will make a best guess of what it considers to be the main subject and put a selection around it. Since our model is posing against a plain background, the selection is fairly accurate.

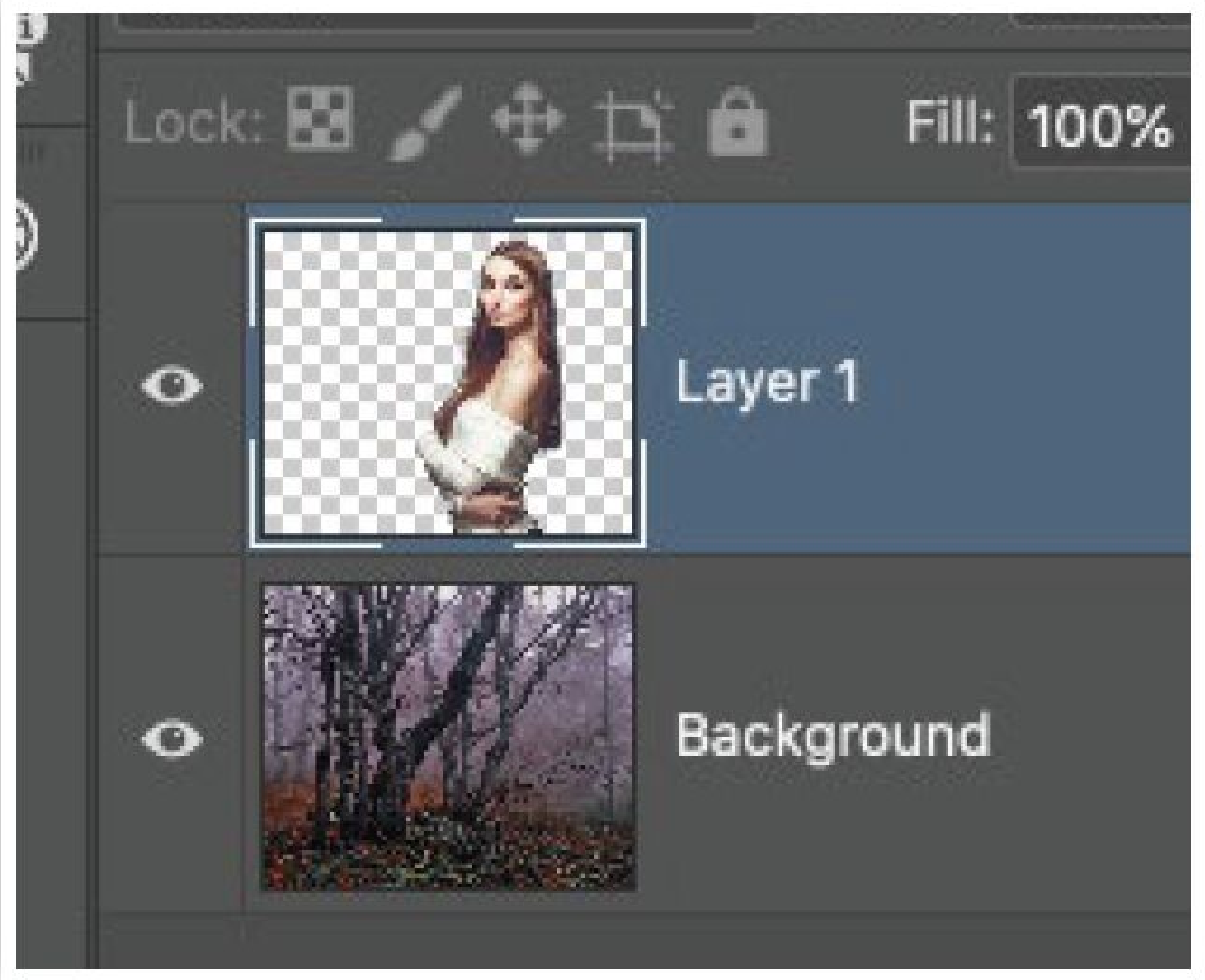

bject
Select and Mask...



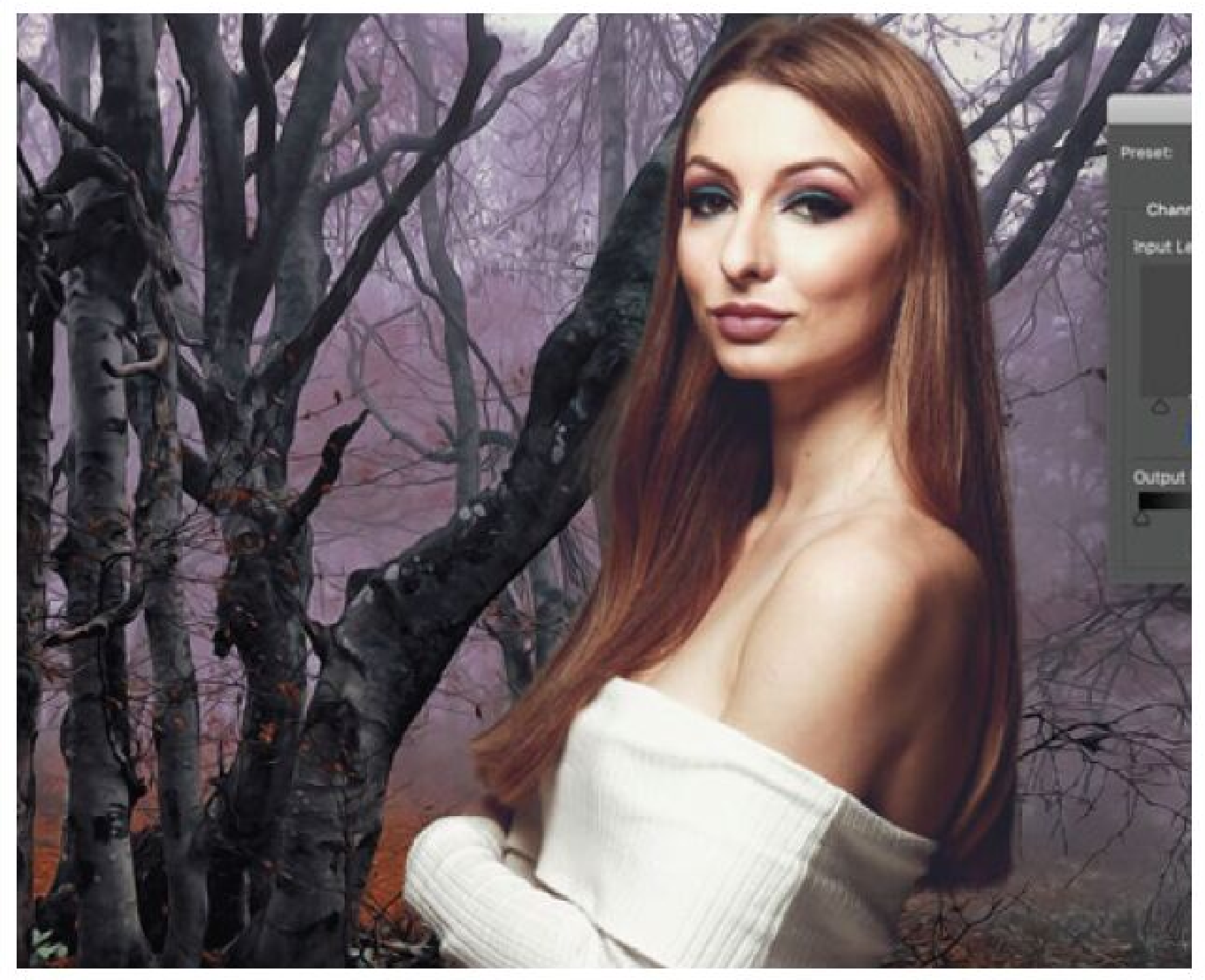
06 Luckily, we have additional tools that allow us to refine the selection still further using the Select and Mask tool. We can click on it and use the Refine Edge Brush tool (R) to brush over any areas that might be in need of some targeted refinement and we can use the Refine Hair tool.


ile
Edit
Image
Layer
Type
Select
Filter
Undo Lasso ⌘Z
Redo ⇧⌘Z
Toggle Last State ⌥⌘Z
Fade... ⇧⌘F
Cut ⌘X
Copy ⌘C
Copy Merged ⇧⌘C
Paste ⌘V
Paste Special
Clear
Search ⌘F
Check Spelling...

07 If you're happy with the refinement, click OK to proceed and return to the main image. You can now go to Edit > Copy (Cmd + C) to copy all the pixels inside the selection area you have created. You can then click on the document tab of the other image to open it.


Lock:
Fill: 100%
Layer 1
Background

08 Now we can go to Edit > Paste (Cmd + V) and paste the cut out girl into this document on its own layer, which is called 'Layer 1' by default. The figure can be moved, scaled and rotated if we wish until we have it how we want it against the woodland background.

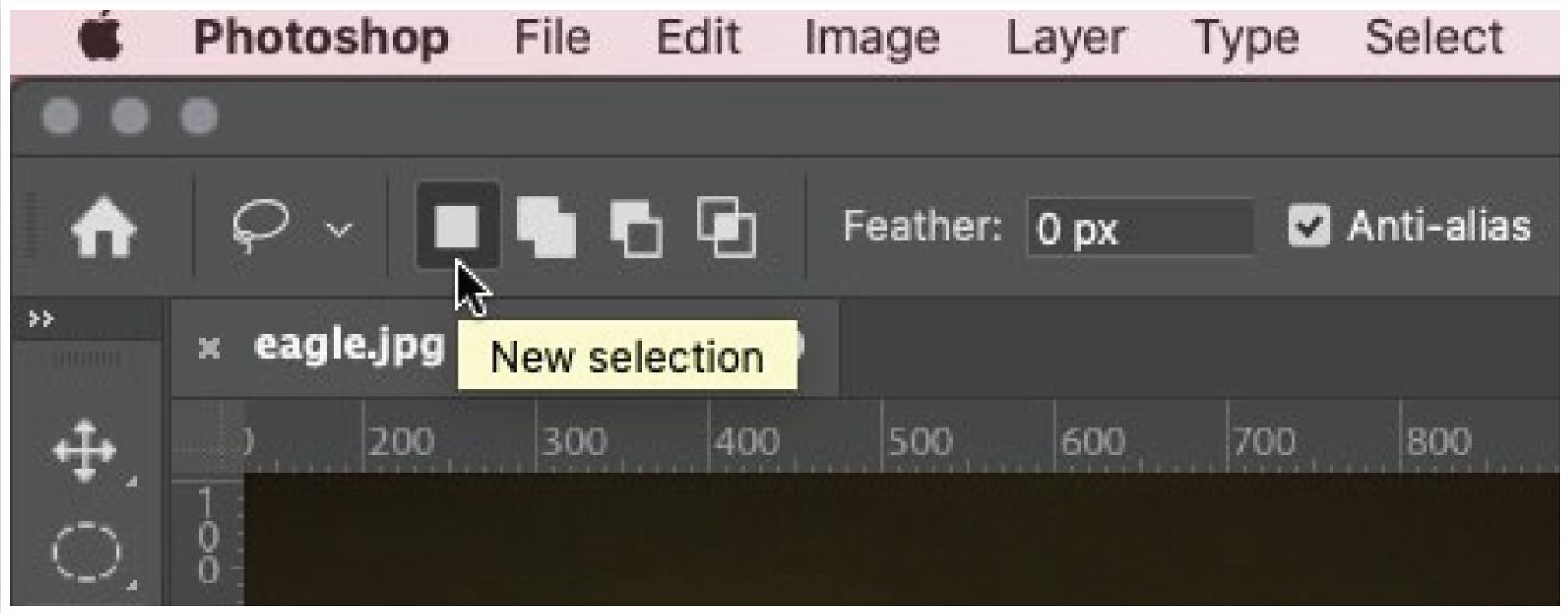


09 All we did next was to use a couple of Levels adjustments to add more contrast to the figure and a little Color Balance adjustment on the woods to make their colours more compatible. The end result is a fine example of how to quickly make cut outs in Photoshop.

Selection Tools

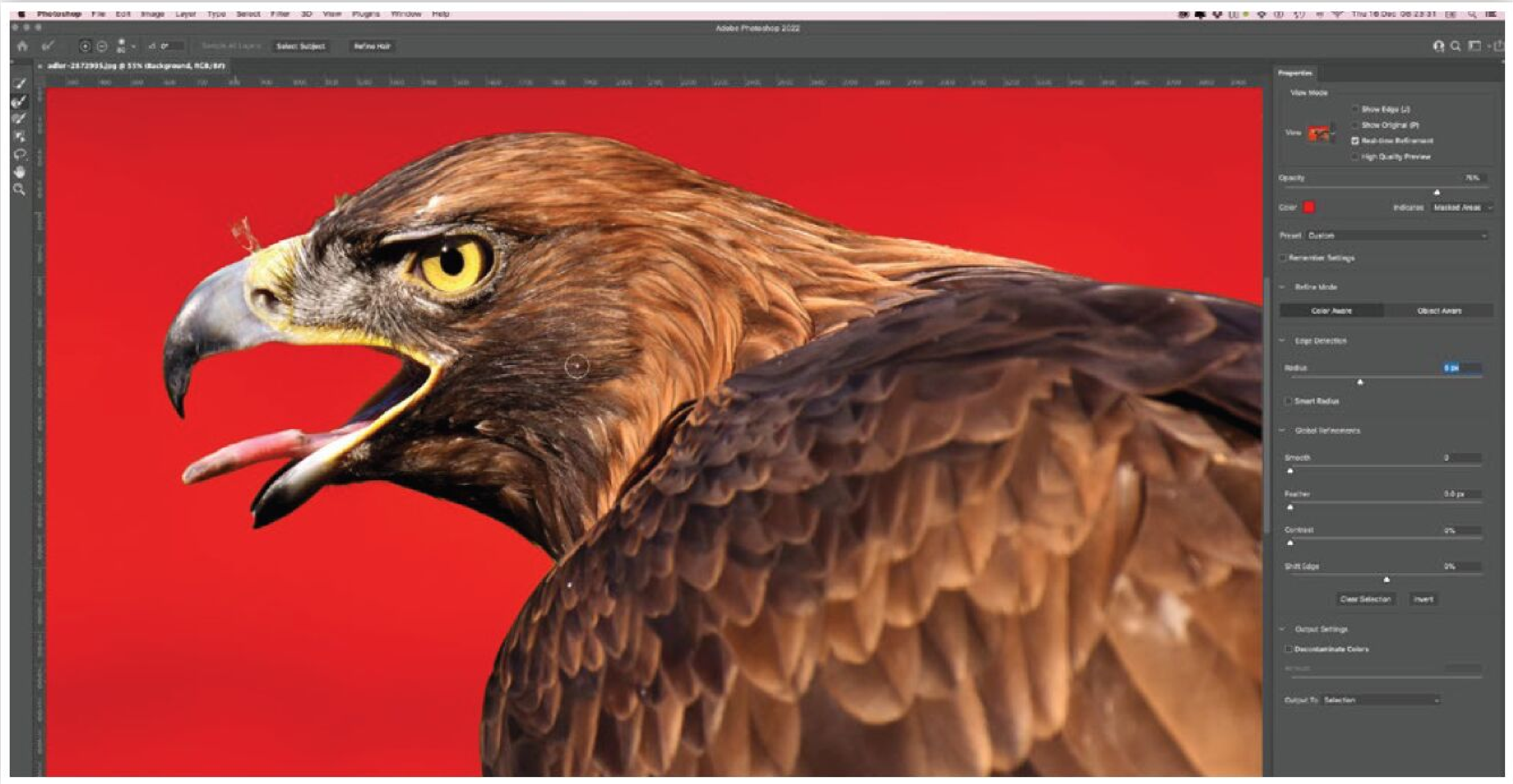
This fundamental technique allows multiple methods for isolating specific areas of your image

The ability to select discrete areas of an image and change them in isolation is fundamental to Photoshop editing and to help with this there are many different ways of making that selection. The most frequently used are the Marquee tools, which allow you to select regular shapes such as rectangles, ellipses and lines. For irregular shapes there are several Lasso tools, which let you draw the area to be selected. For quicker selections there are the Magic Wand and Quick Selection tools.


Photoshop
File
Edit
Image
Layer
Type
Select
Feather: 0 px
Anti-alias
eagle.jpg
New selection
200
300
400
500
600
700
800

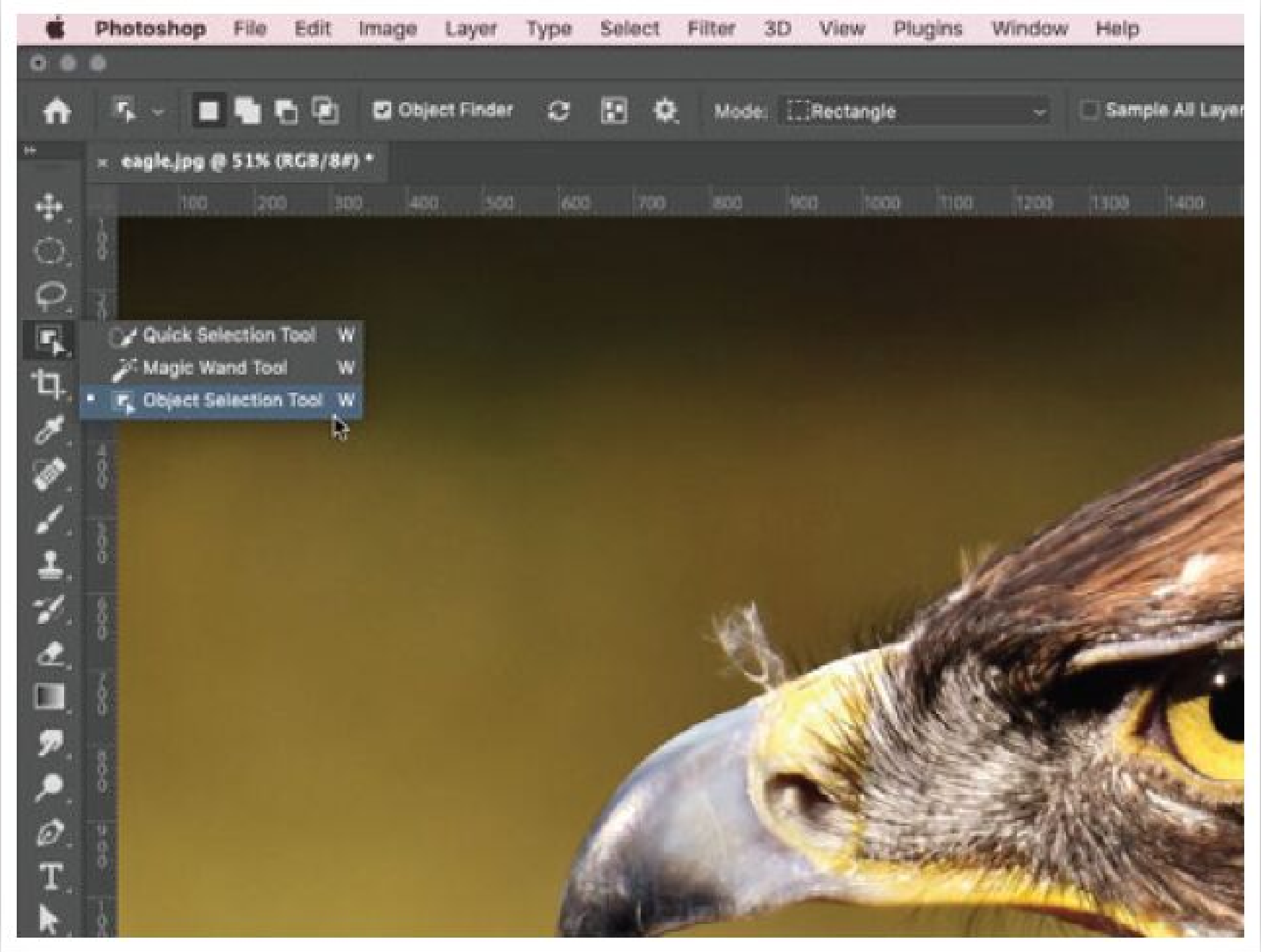
Common Options

If you look across the top left of your menu bar, you will see there are common tool options for all of the selection tools. After the Home button and the Tool preset picker are the selection options. The row of four buttons are: New Selection, which is the default setting; Add To Selection, which can also be activated temporarily by holding down the Shift key; Subtract From Selection, also activated by the Alt key; and Intersect With Selection, which selects only from areas you have already selected.



Edge Refinement

The next option is Feather, which softens the edge of the selection based on the number of pixels you enter in the Feather input field. This is useful for gradual effects where you do not want a hard edge around your active selection. If you want even more control, the edge of the selection can be further adjusted by using Select and Mask, which uses sophisticated edge-detection techniques to automatically select around things like fine hair or soft and blurred edges. You are given a number of options and tools to control just how much refinement and adjustment you want to apply to your selection. A number of selection tools are also included within the Select and Mask panel itself.


Photoshop
File
Edit
Image
Layer
Type
Select
Filter
3D
View
Plugins
Window
Help
Object Finder
Mode:
Rectangle
Sample All Layers
eagle.jpg @ 51% (RGB/8#) *
Quick Selection Tool W
Magic Wand Tool W
Object Selection Tool W

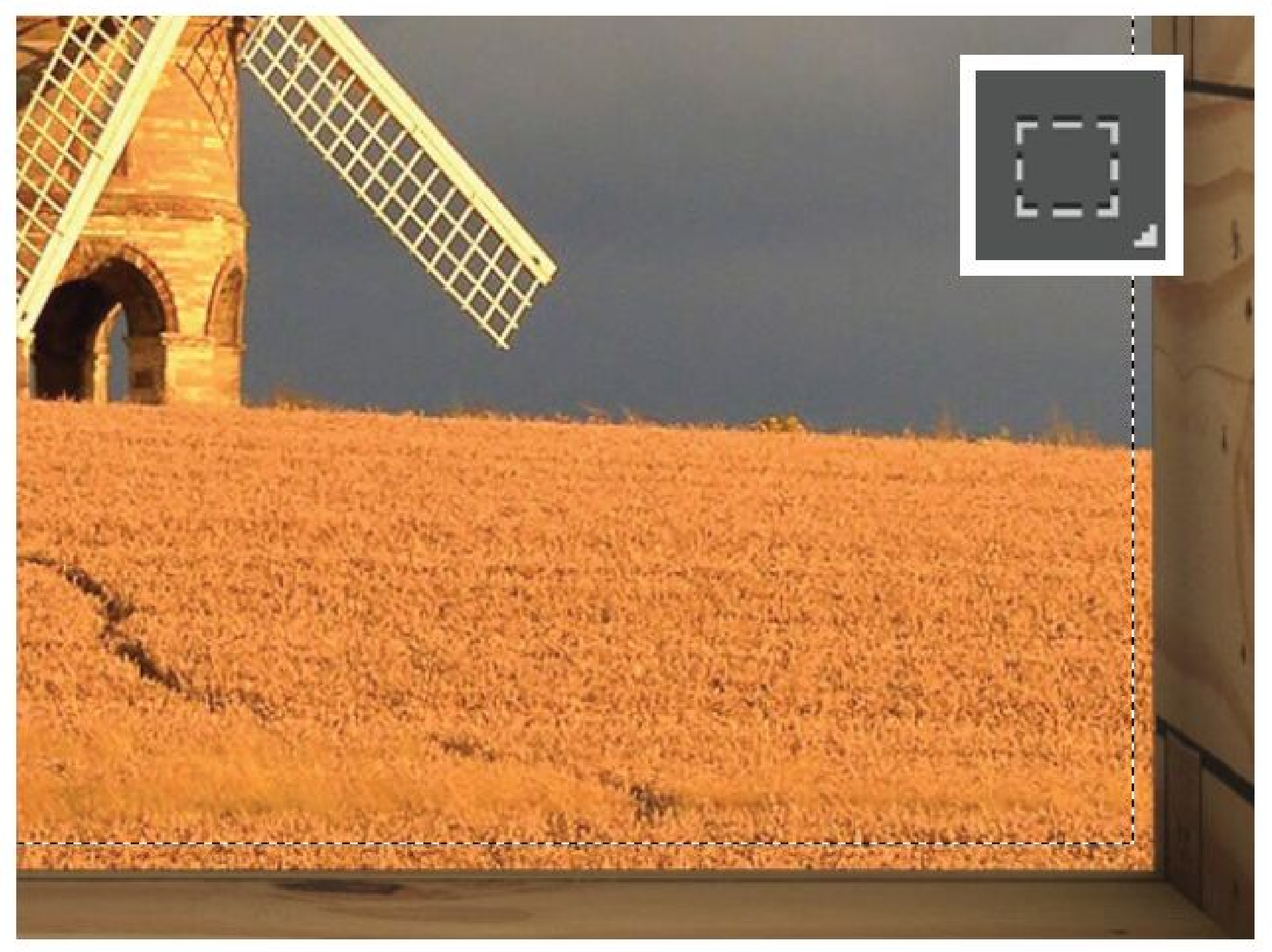
Object Selection Tool

The most recent update to Photoshop has seen a number or improvements to the selection tools on offer. Most notable is the Object Selection Tool which can scan your image and individually target all the differentiated objects in your photo. This is a handy new feature and when used in conjunction with all the other selection methods such as Select Subject, Select Sky and all those shown opposite, you have lots to choose from.

USEFUL TIP

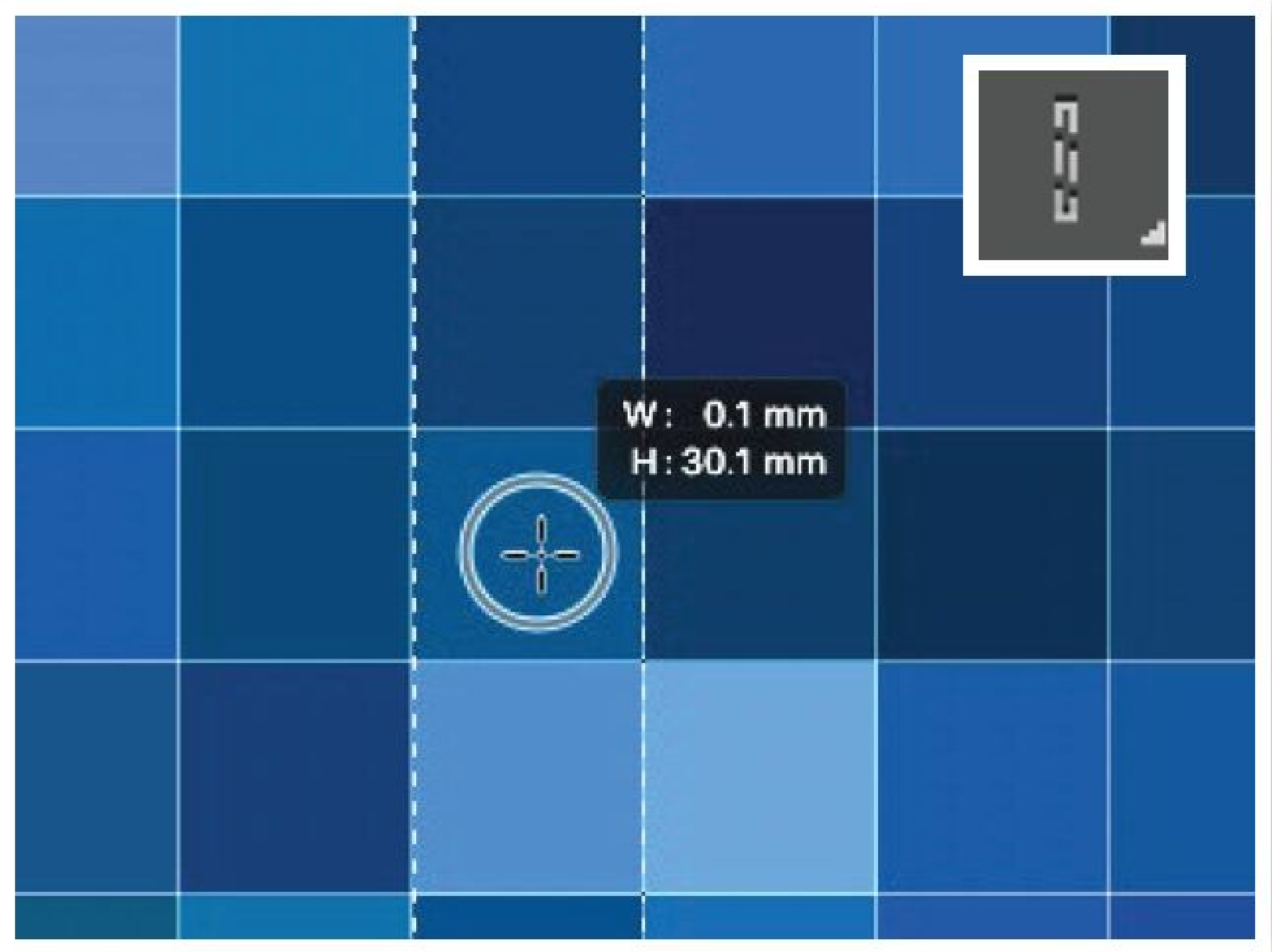
You can use the Quick Selection tool to quickly paint a selection using an adjustable round brush tip. As you drag, the selection expands outward and automatically finds and follows defined edges in the image. If the tool isn't visible in your toolbar, hold down the Magic Wand tool to see the fly-out menu with the additional options that are available to you.

Rectangular Marquee



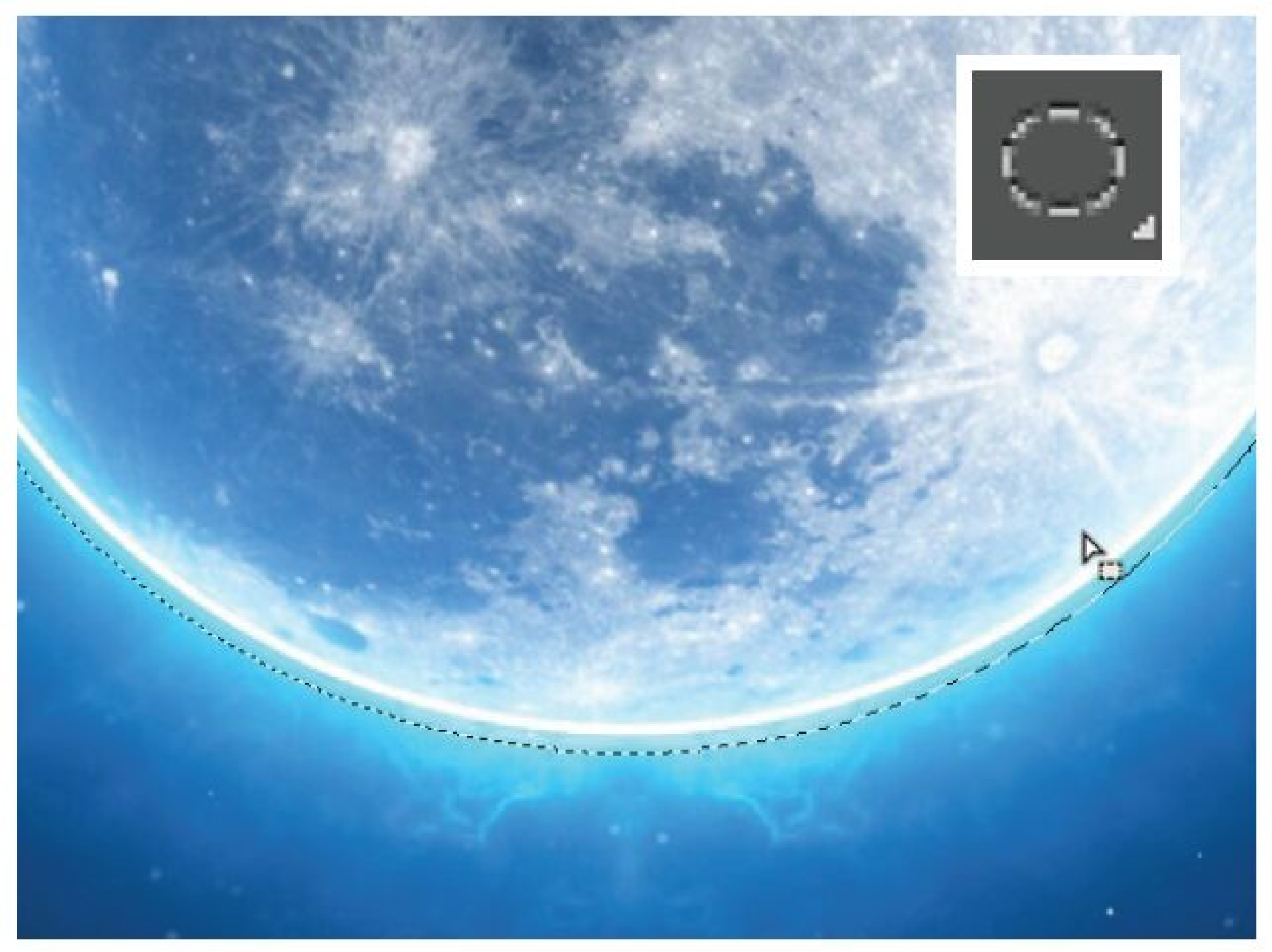
Make a selection of a rectangular area of any size or aspect ratio. Just click and drag to the right size. Hold down the Shift key to constrain the selection to a square shape and use the arrow keys to move the selection area.

Single Column Marquee



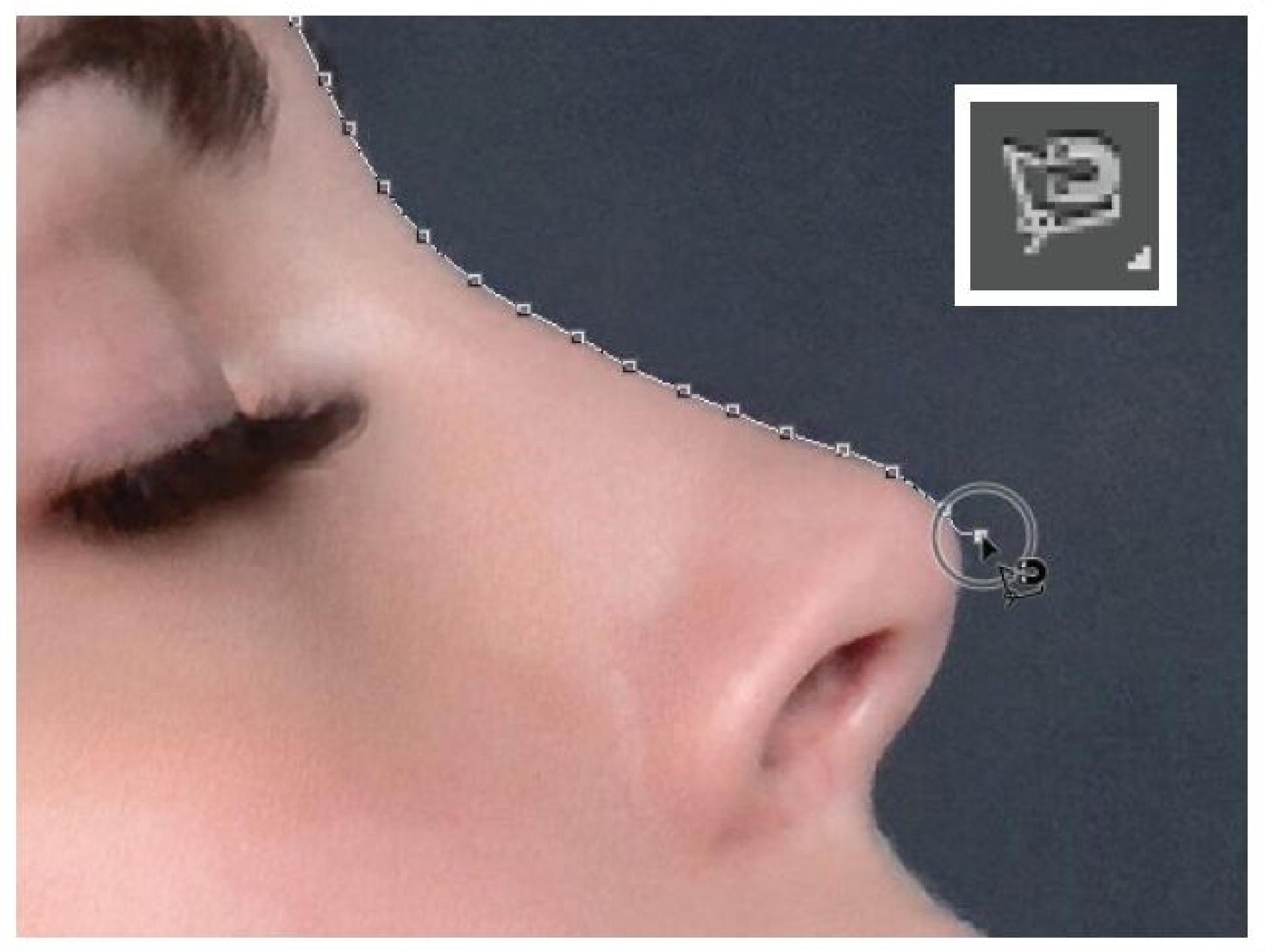
This option creates a selection of just a single vertical column of pixels. This is useful for tidying up other selections or crops that are just a little too big. Click near the area you want to select and then drag the marquee to the exact location.

Elliptical Marquee



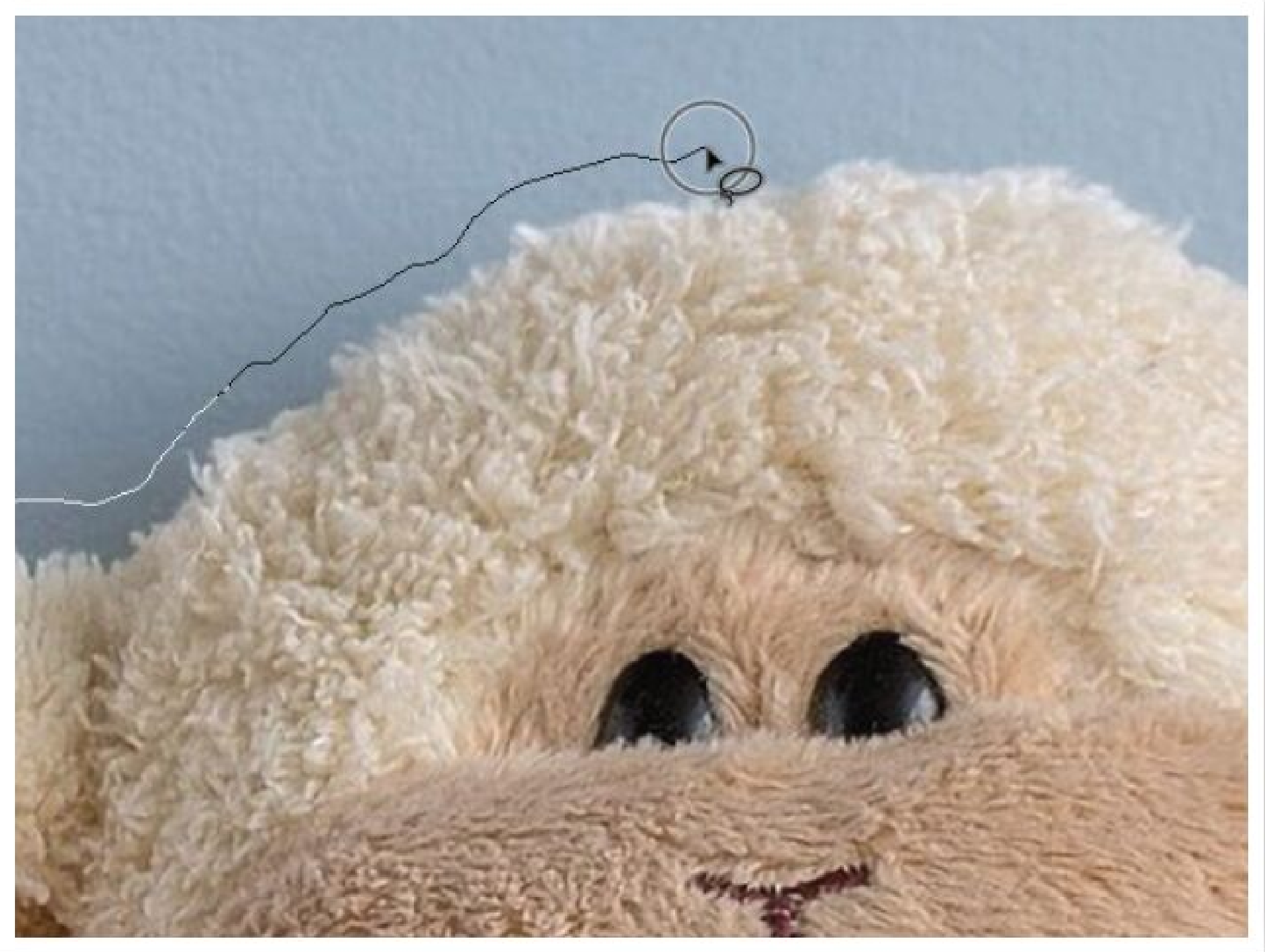
Create a selection of an elliptical shape of any size or proportion. Just click and drag to the size and shape you need and hold down the Shift key to draw a circle. If you hold down the Alt key the ellipse will be centred on the starting point.

Magnetic Lasso



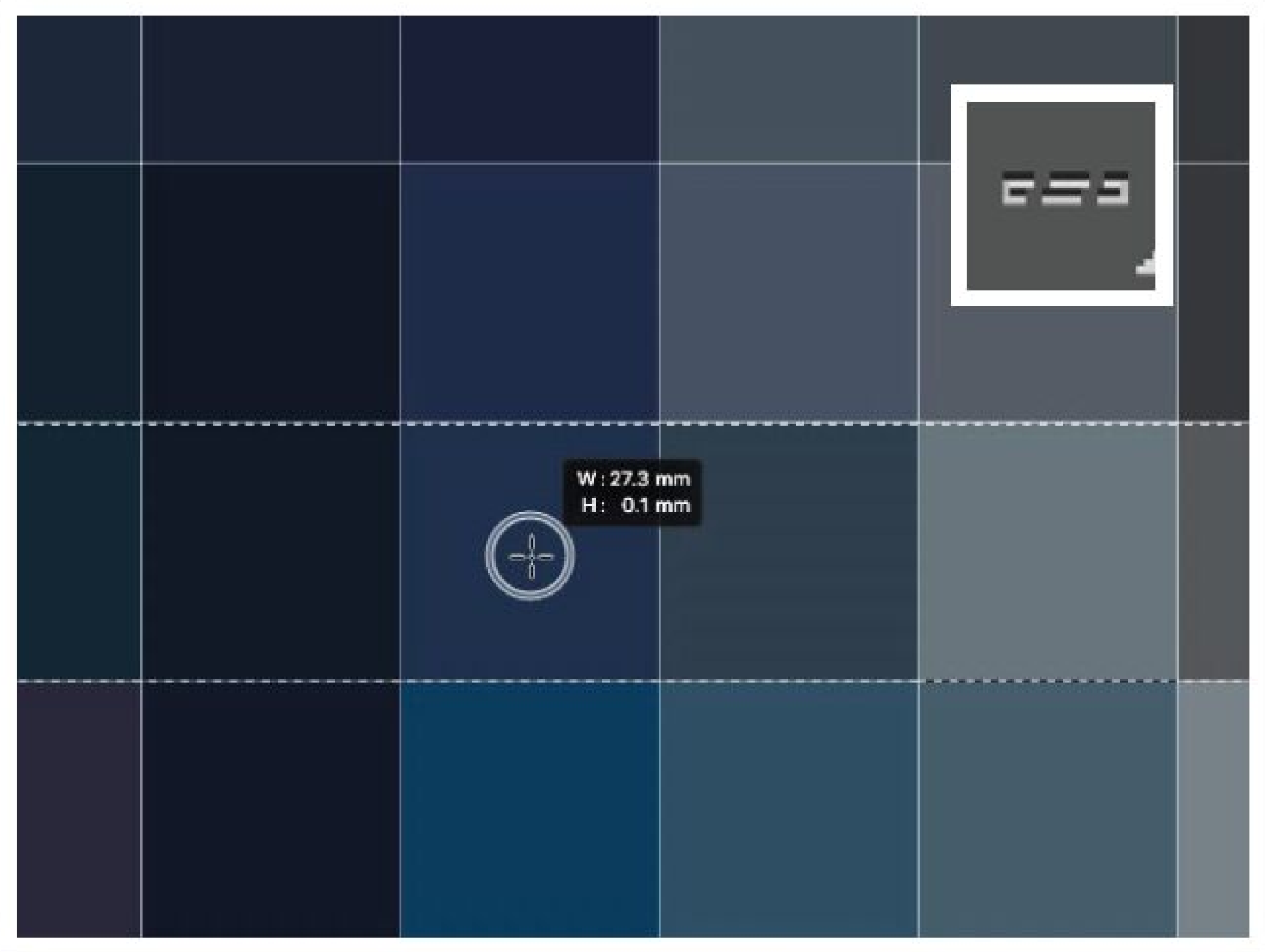
This tool uses edge-detection to try to match your selection to the edges of the subject in the image. You simply draw a line as closely as possible to what you want and it should automatically snap to the edge. Works best on high contrast areas.

Lasso



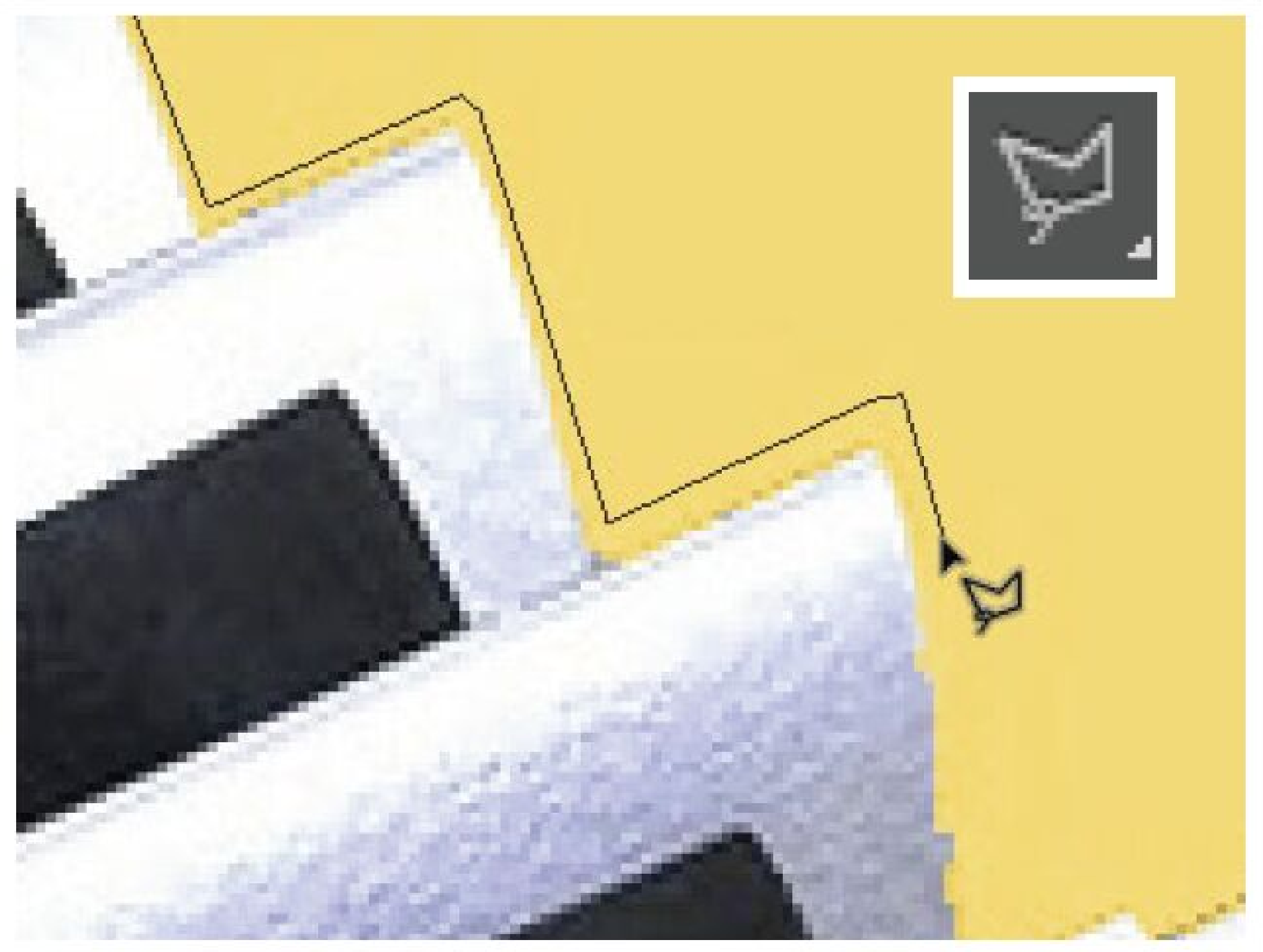
The Lasso is also used to make area selections from the active layer, but this time the shape can be irregular, marked out by clicking or drawing a line around the area to be selected. Join up your lasso at the point you started to close the selection.

Single Row Marquee



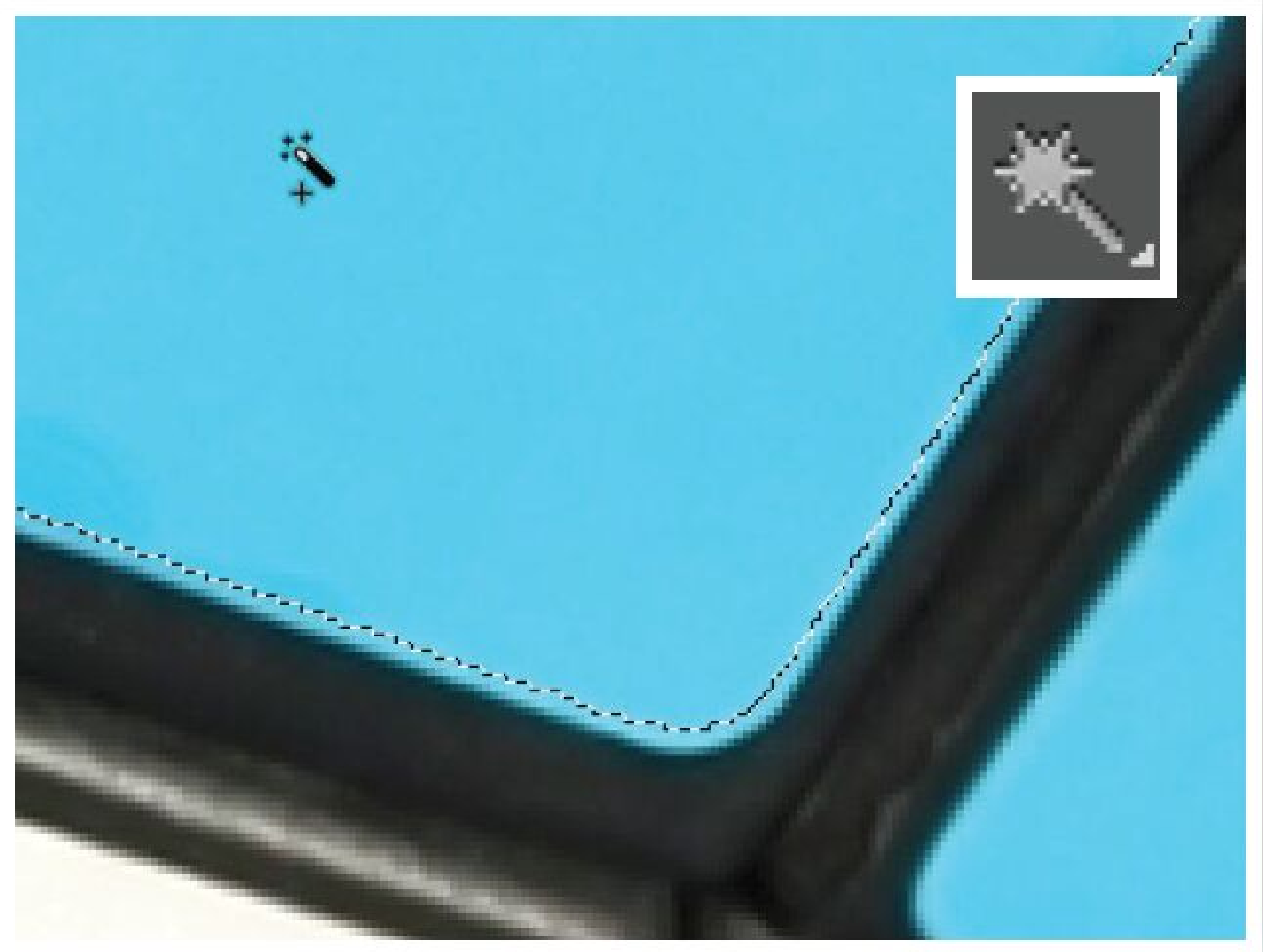
This is the same as Single Column Marquee, but this time it selects a single horizontal row of pixels. As with the Single Column Marquee option, click near the area you want to select and then drag the marquee to the exact location.

Polygonal Lasso



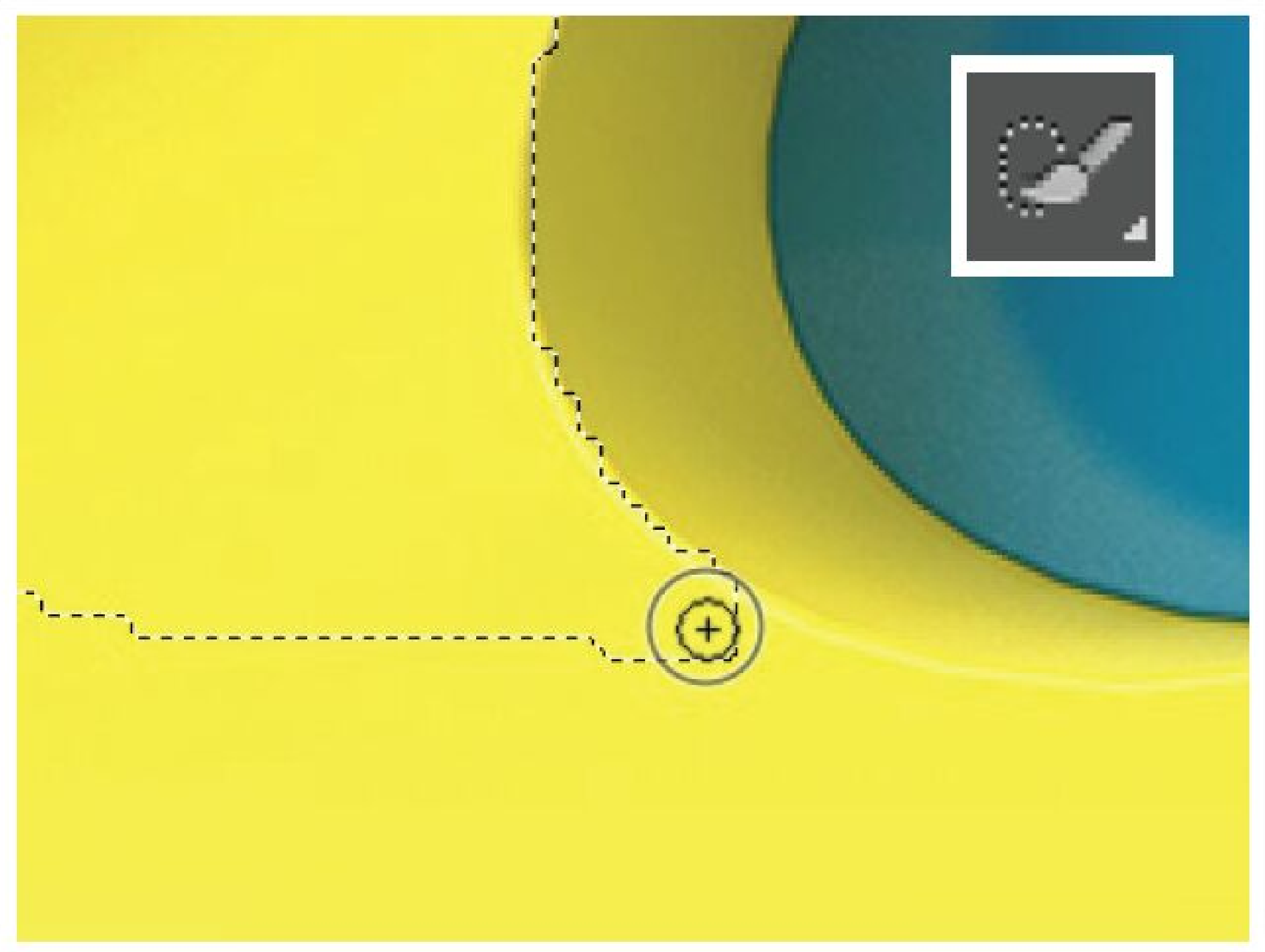
The Polygonal Lasso lets you draw a point-to-point line around your subject. It can only draw straight lines, but by using very short sections it's possible to approximate a curved line. To draw curved lines you need to use the Pen tool.

Magic Wand



This tool lets you make selections from areas of the same colour and brightness and by adjusting the tolerance and whether or not it will select contiguous areas, you can use it to do things like automatically select all the sky in your image.

Quick Selection

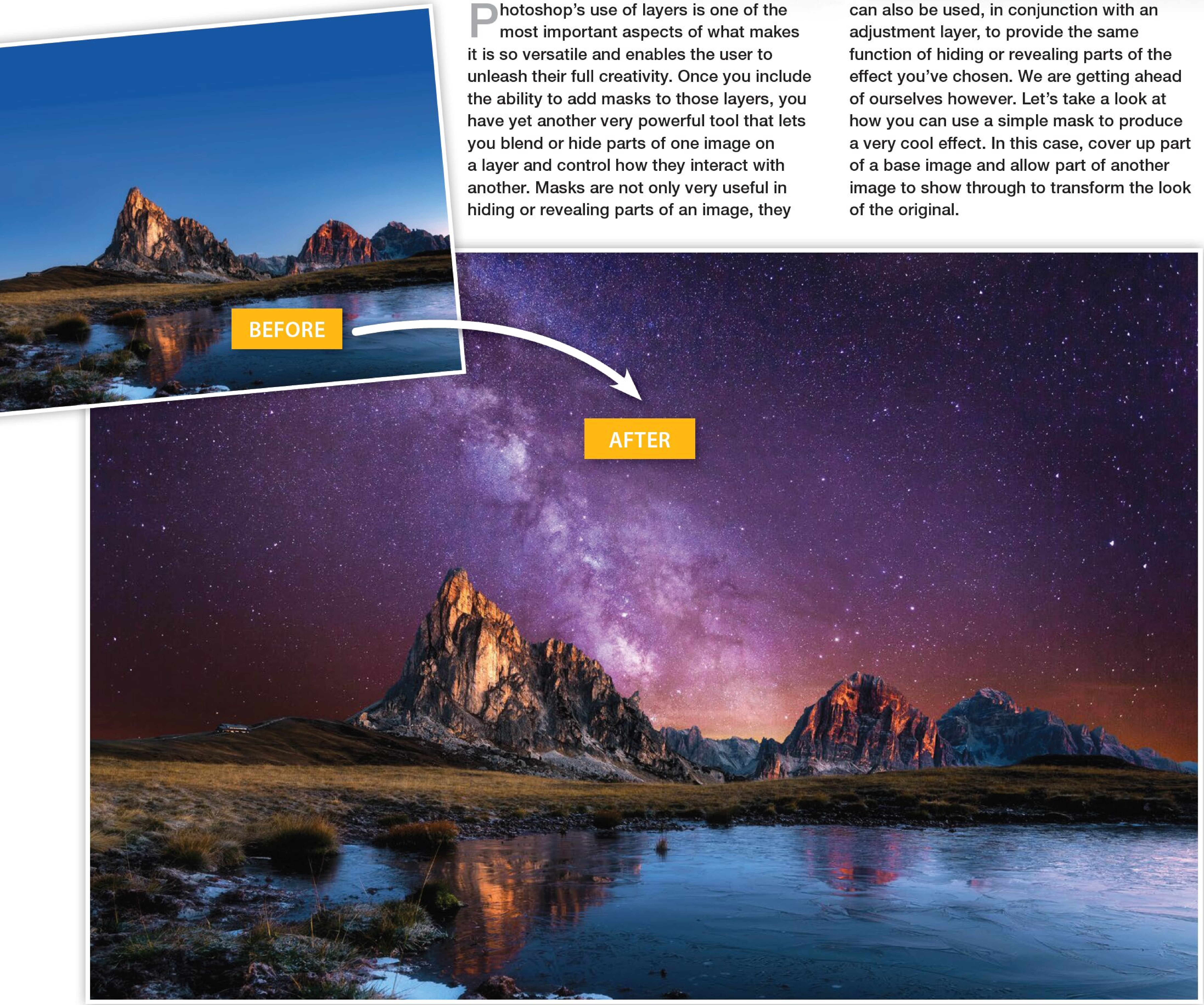


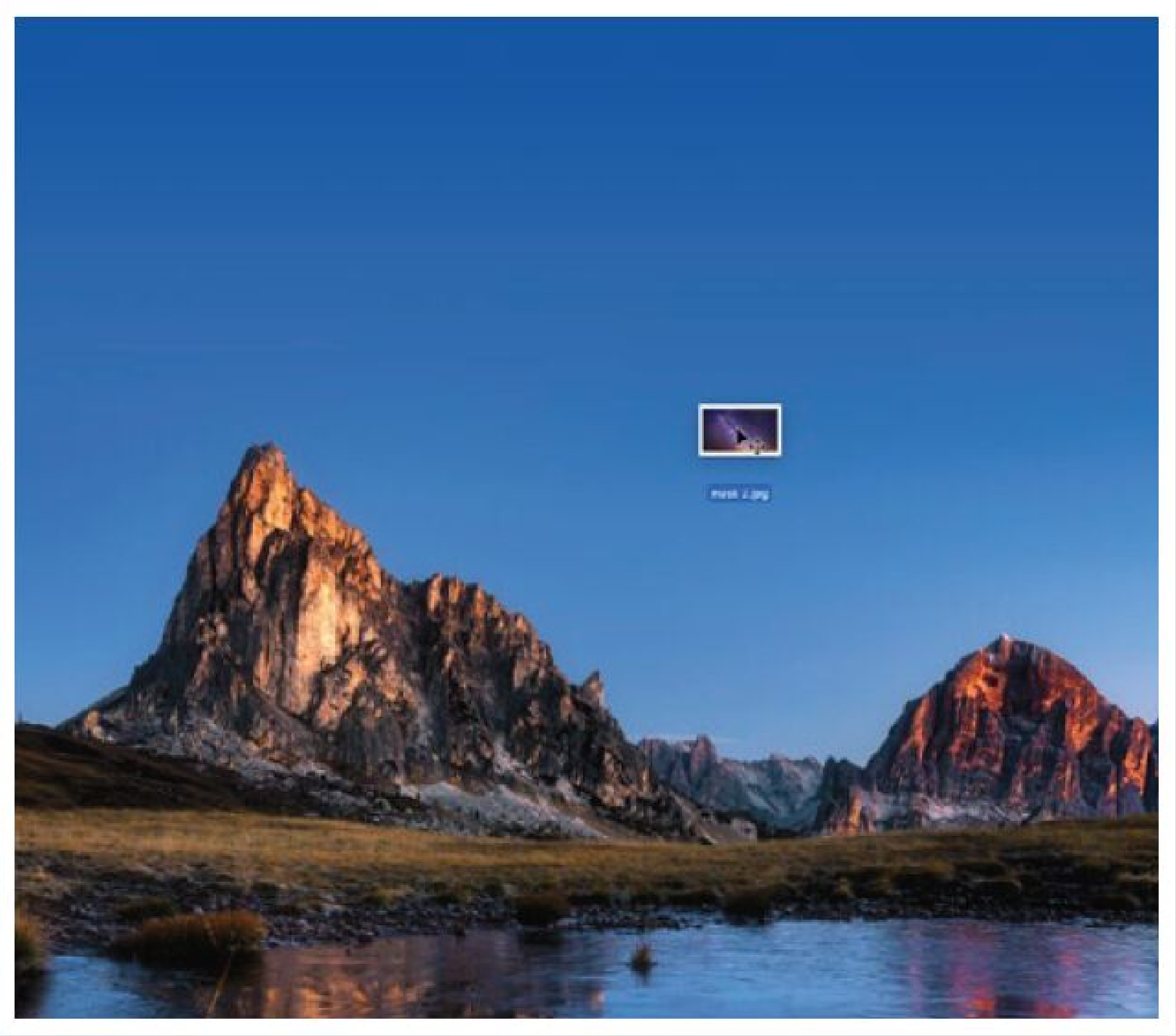
This tool lets you paint a selection and uses edge detection to try to match the selection to the nearest hard edge in the image. Again it's often only an approximation and will have problems with blurred or low contrast edges.

Your First Layer Mask

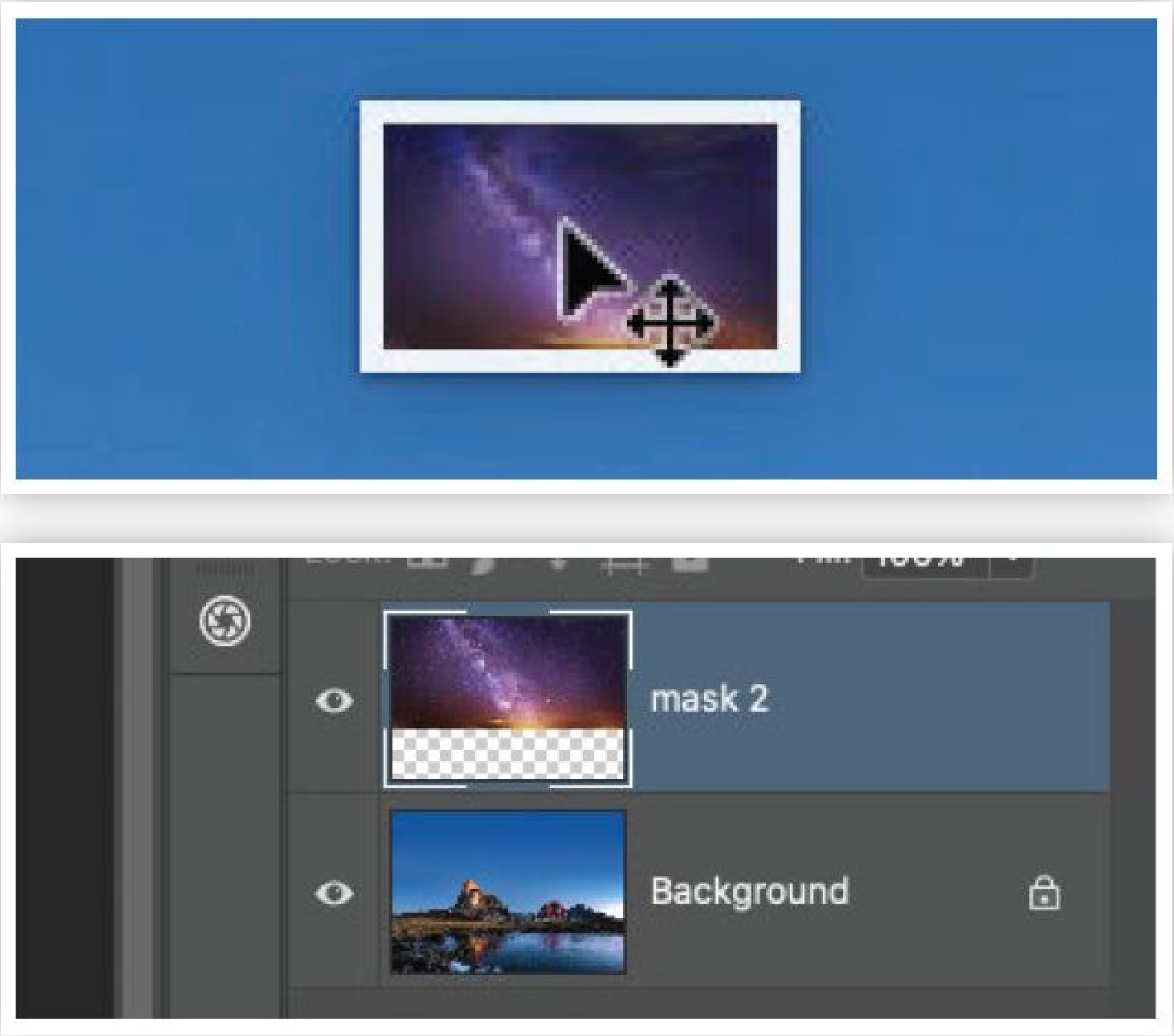
An introduction to one of the key ingredients of Photoshop work

Photoshop's use of layers is one of the most important aspects of what makes it is so versatile and enables the user to unleash their full creativity. Once you include the ability to add masks to those layers, you have yet another very powerful tool that lets you blend or hide parts of one image on a layer and control how they interact with another. Masks are not only very useful in hiding or revealing parts of an image, they can also be used, in conjunction with an adjustment layer, to provide the same function of hiding or revealing parts of the effect you've chosen. We are getting ahead of ourselves however. Let's take a look at how you can use a simple mask to produce a very cool effect. In this case, cover up part of a base image and allow part of another image to show through to transform the look of the original.

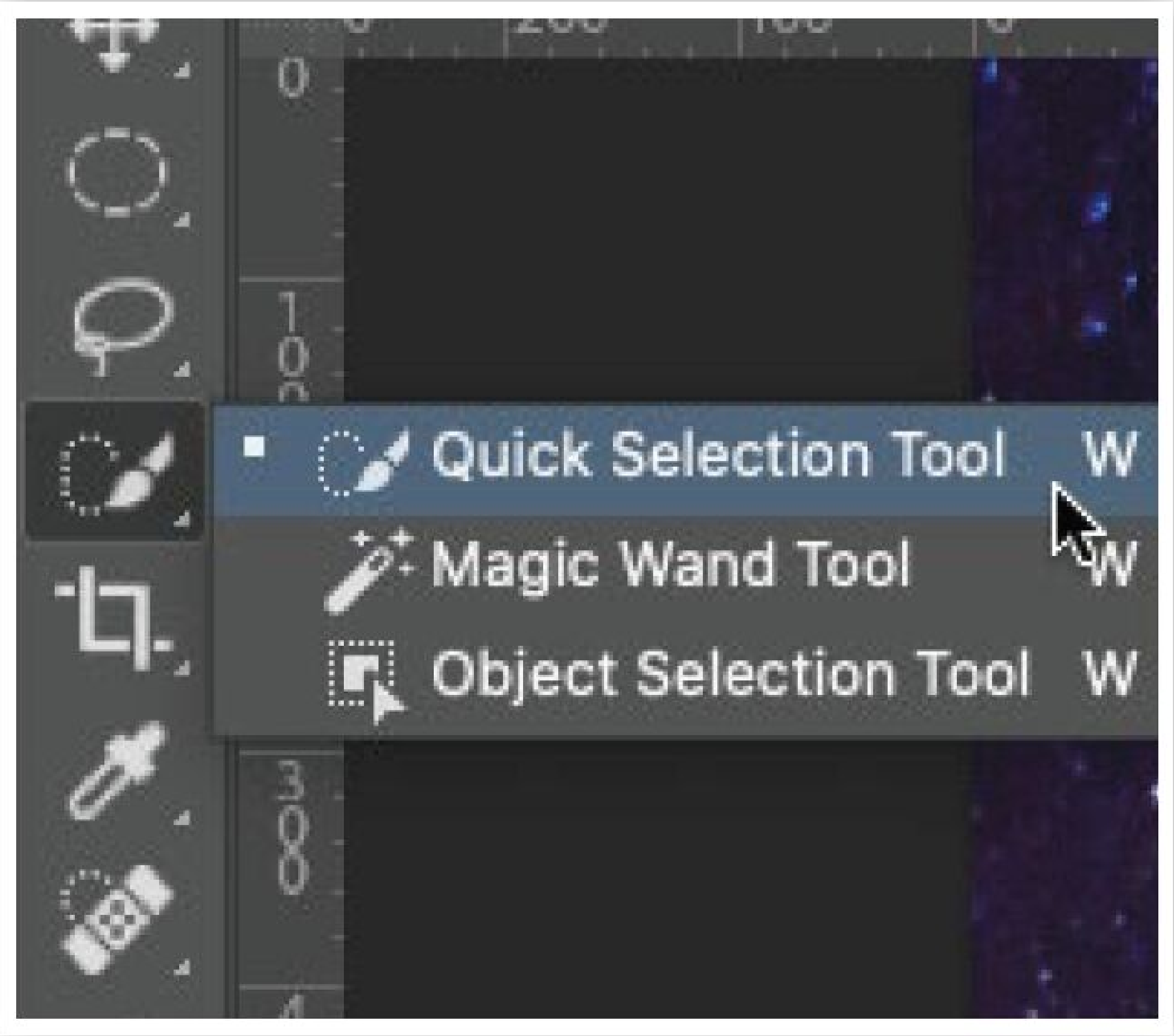




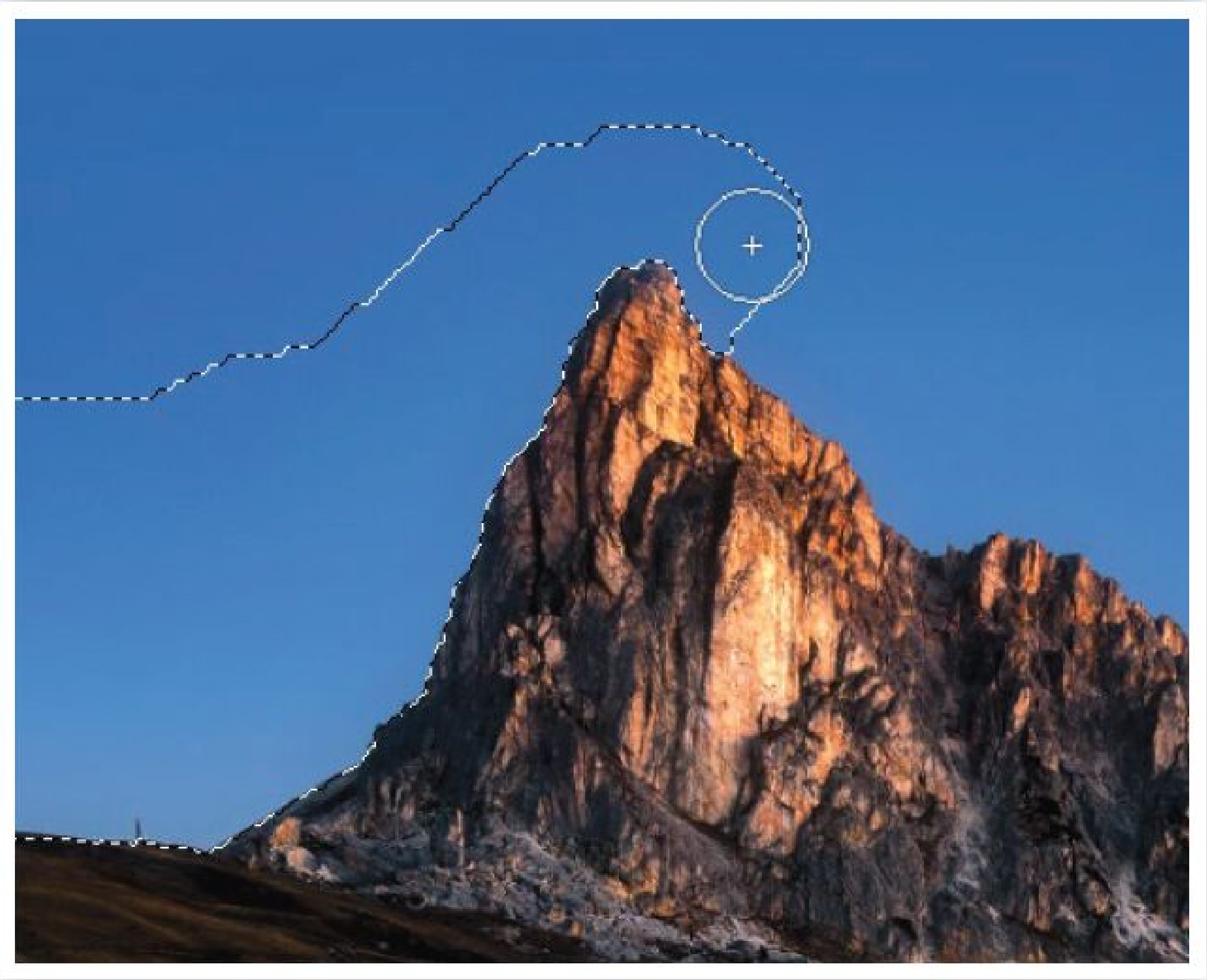
01 We have opened an example image of a beautifully scenic lakeside mounain scene. As lovely as this image is, we want to be able to replace the sky with something a little more exciting, and masking is a method that allows us to do just that.



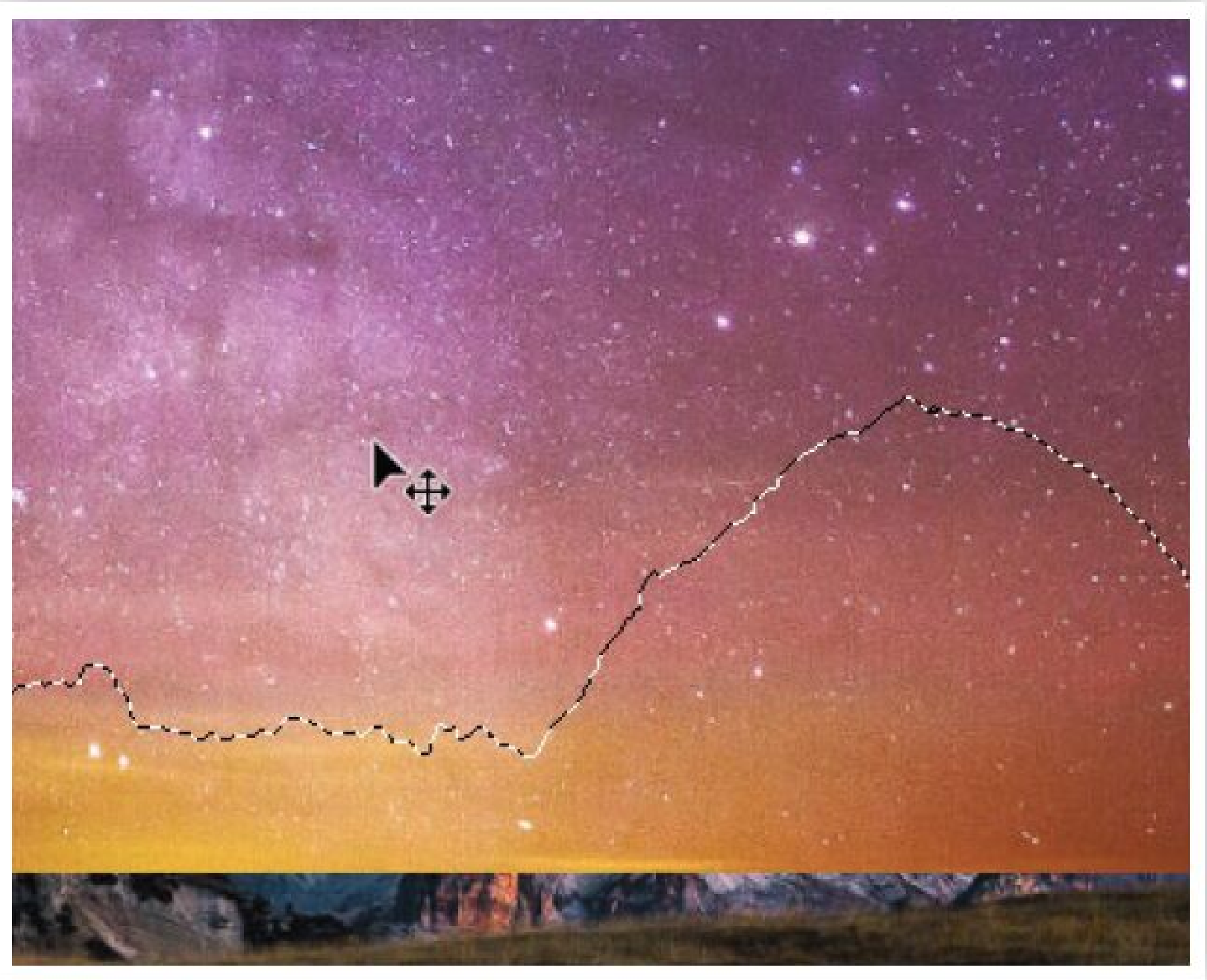
02 We have another photo with a great night sky that should work well with our original mountain image. We simply drag and drop the sky image onto the active document, which then appears on its own layer. We then scale the image so that the sky fills most of the frame.



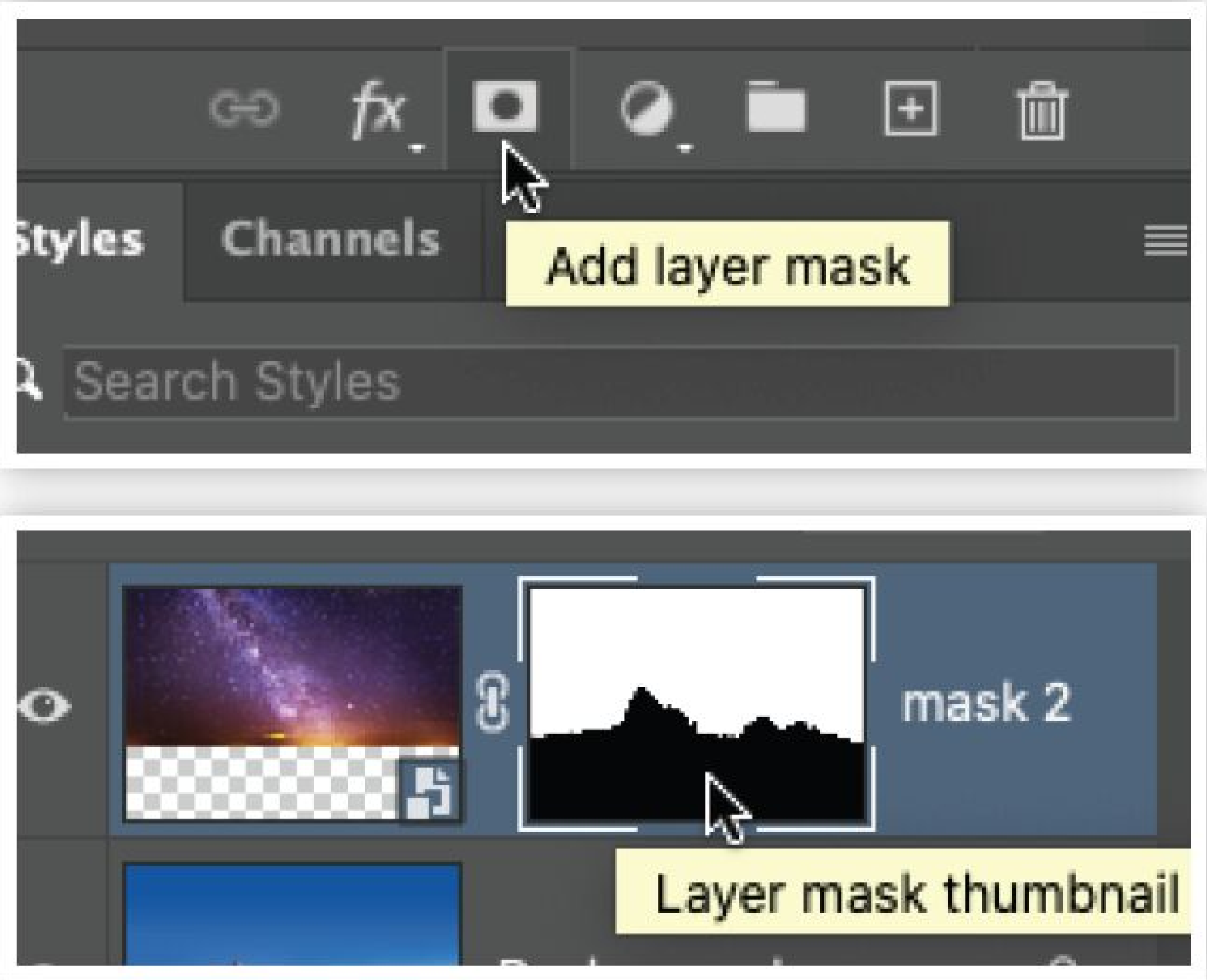
03 Making the new layer invisible for a moment, we make the Background image active by clicking its layer, then go over to the toolbar and choose the Quick Selection Tool (W). This tool allows for simple area selection based on detecting contrasting edges.



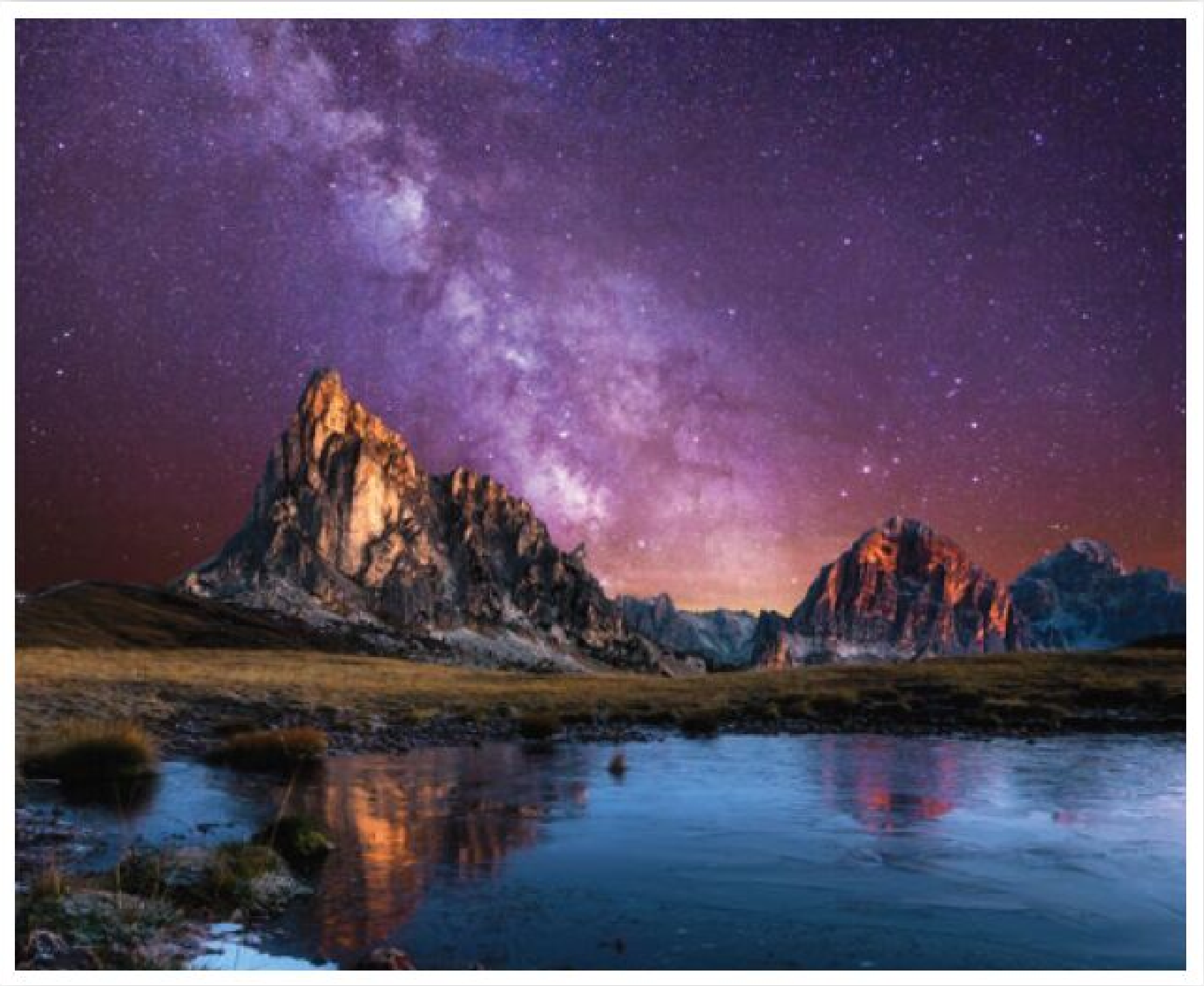
04 Because the outline of the mountain against the featureless sky is very well defined, the Quick Selection Tool can easily select the sky alone. All you do is click the tool on an area of sky and then slowly drag the cursor around the sky area, selecting more sky as you go.



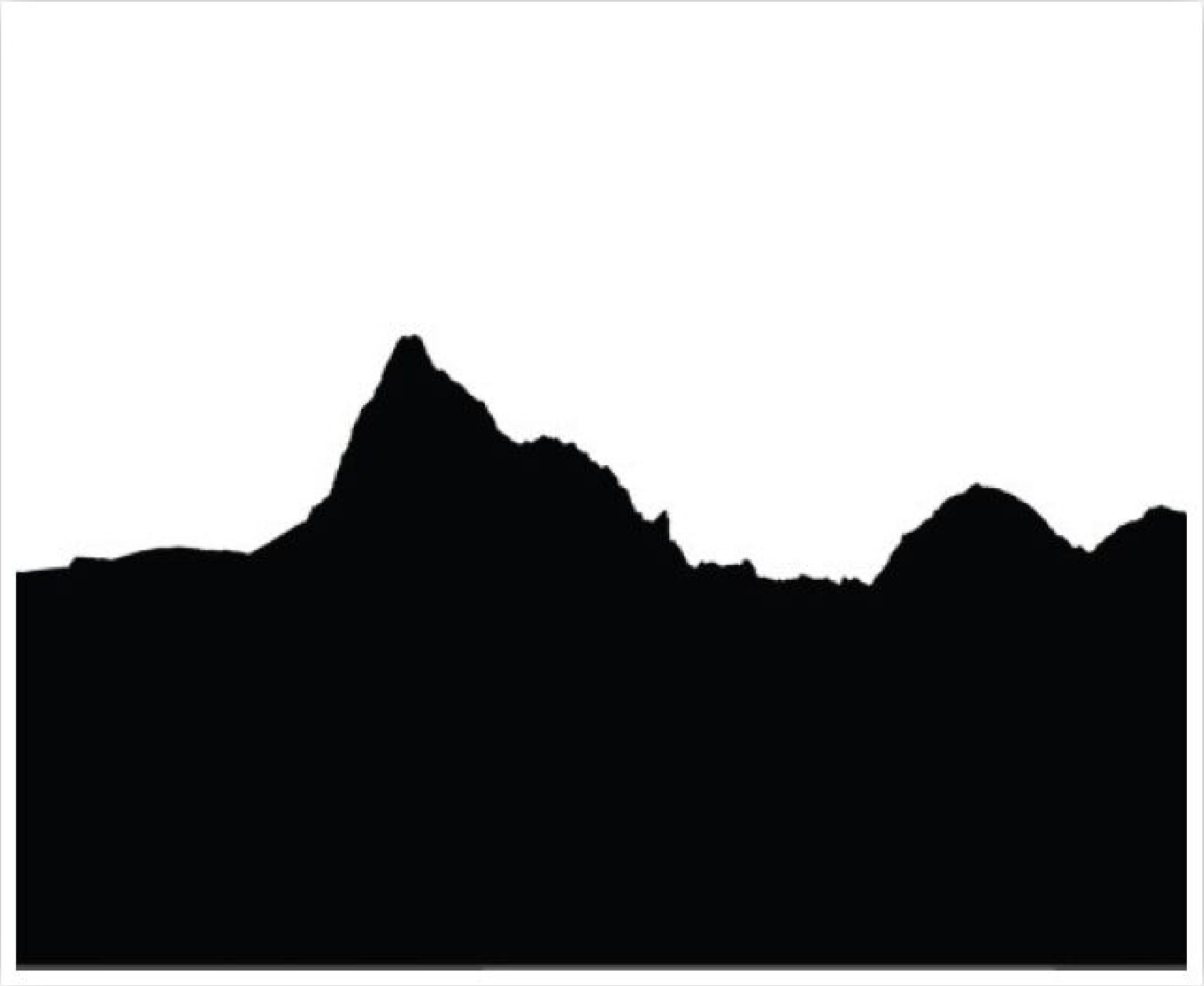
05 Make the top layer visible and active again and you will notice you r active selection that encloses the sky area (indicated by the black and lines known as marching ants) is now overlaid. We want to turn this area into a mask that hides the area outside the selection.



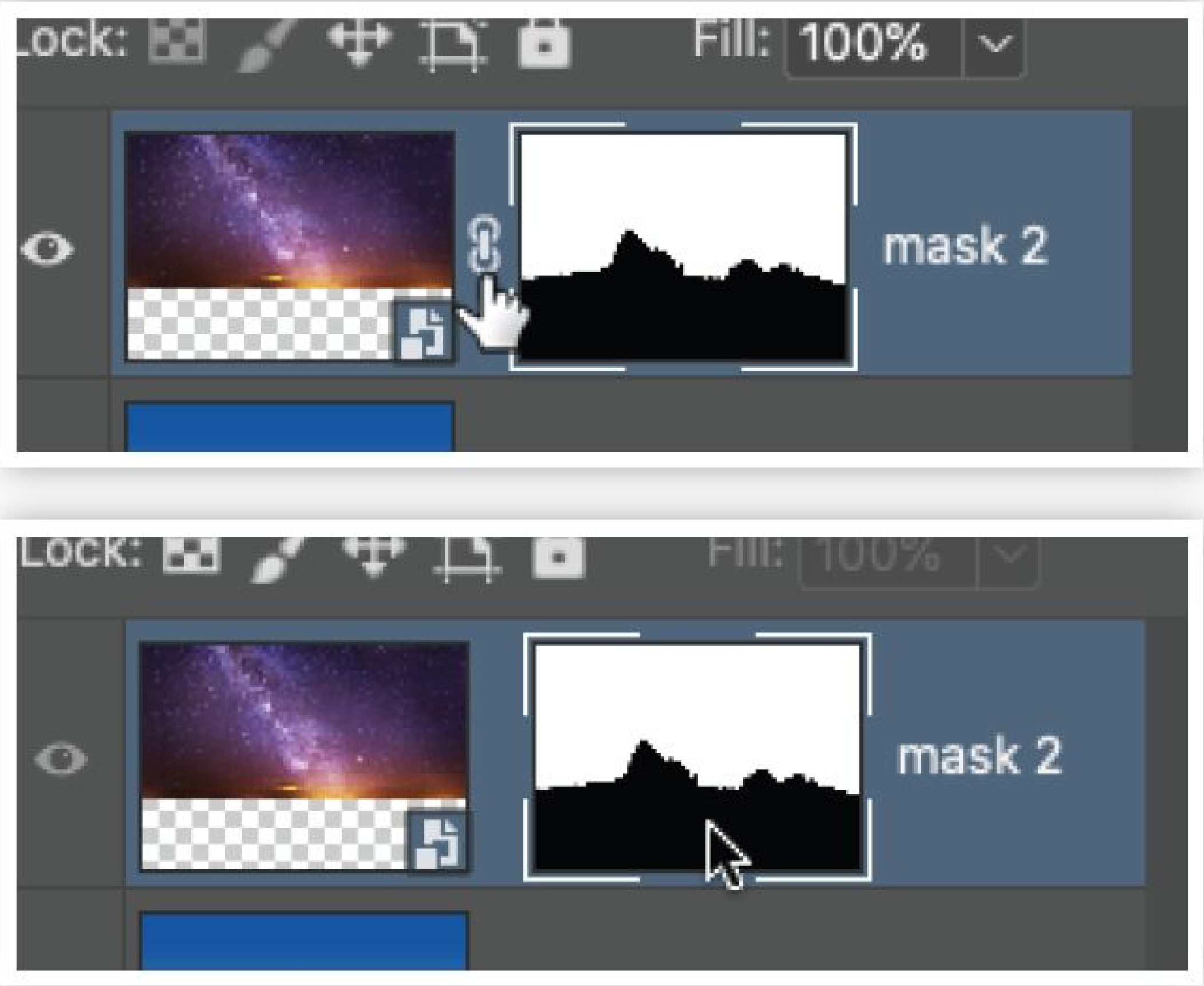
06 Keeping the selection active, go down to the layer options palette and choose Add Layer Mask. When you do, a mask will be added to the top layer in the shape of the selection you made. The area inside the selection is white, the area outside the selection is black.



07 Any white masked area allows that part of the layer be seen, whilst any black part of the mask hides that part of the layer. The result is that only the interesting sky area of the top layer is visible, while the featureless sky is hidden on the layer below.



08 To view the mask on its own, hold the Alt key on your keyboard and left-click on the mask itself. The Quick Selection Tool made a decent job of discerning the edge between the mountain and the featureless sky. Alt + left-click on the mask to return to normal view.

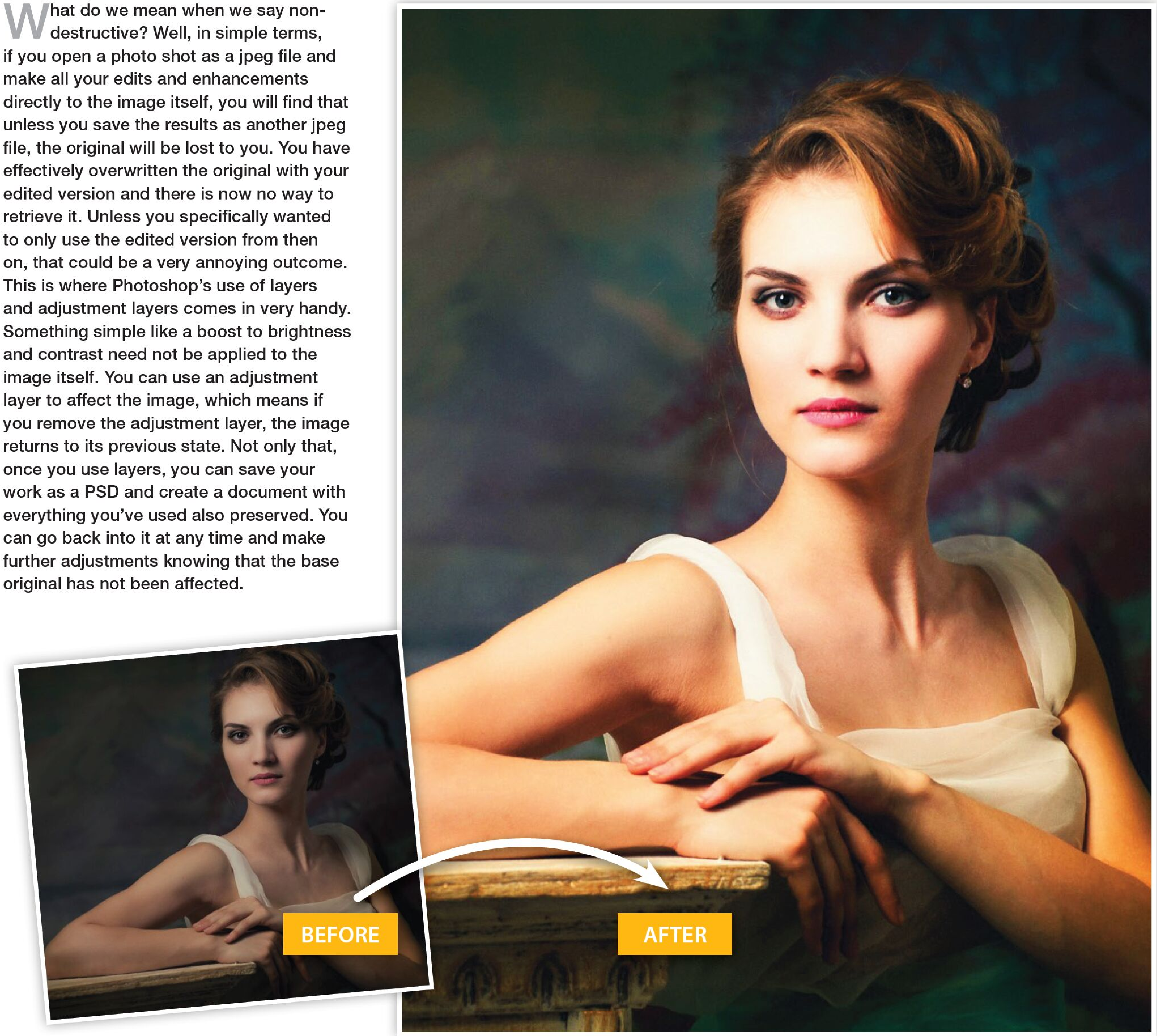


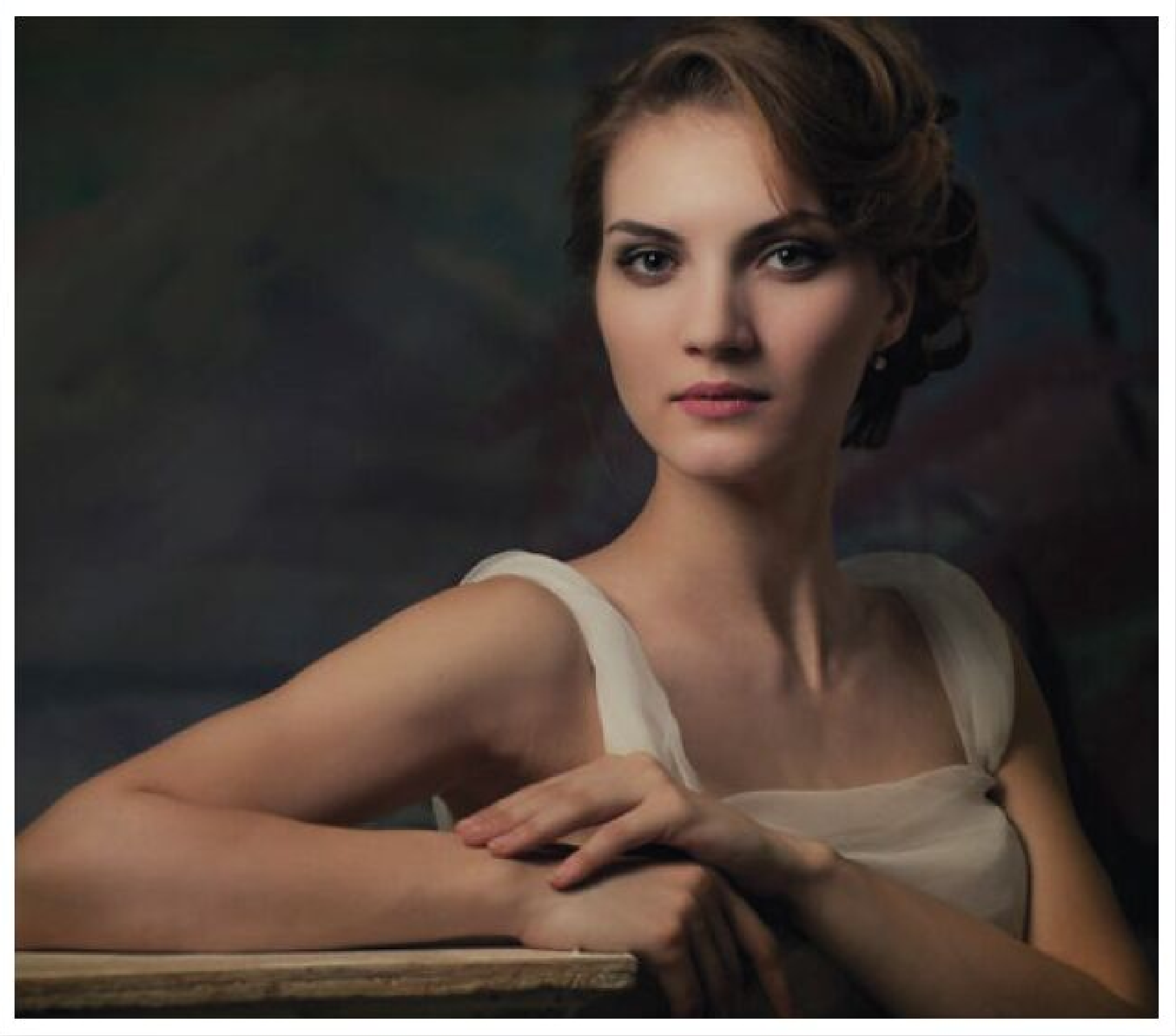
09 To move the sky in the top layer around, but keep the mask in the correct position, you can click on the small Chain link icon between the layer thumbnail and the layer mask thumbnail. This unlinks the image from the mask so either can move without affecting the other.

Your First Set of Adjustments

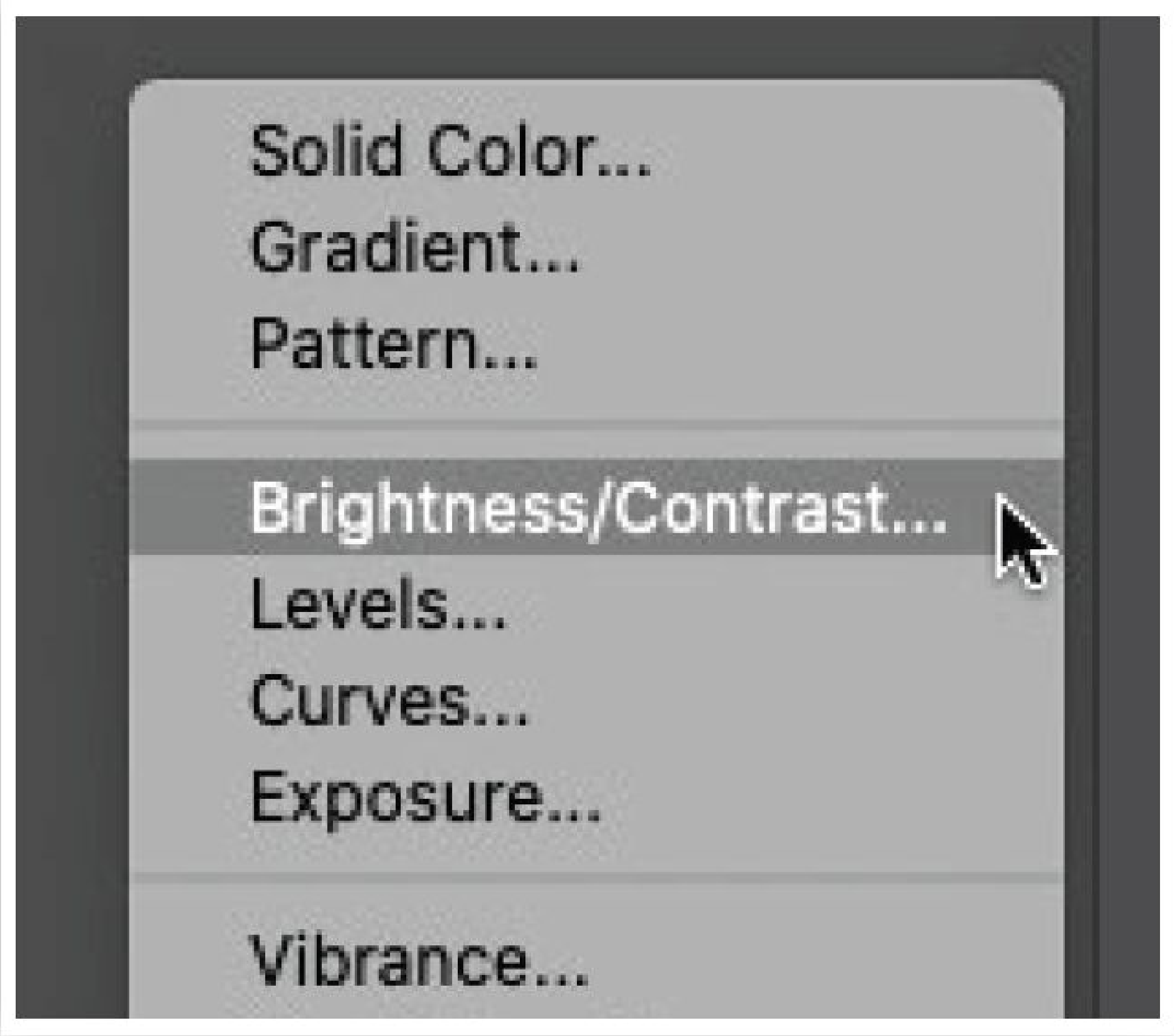
The use of adjustments in Photoshop are another key aspect of non-destructive editing

What do we mean when we say non-destructive? Well, in simple terms, if you open a photo shot as a jpeg file and make all your edits and enhancements directly to the image itself, you will find that unless you save the results as another jpeg file, the original will be lost to you. You have effectively overwritten the original with your edited version and there is now no way to retrieve it. Unless you specifically wanted to only use the edited version from then on, that could be a very annoying outcome. This is where Photoshop's use of layers and adjustment layers comes in very handy. Something simple like a boost to brightness and contrast need not be applied to the image itself. You can use an adjustment layer to affect the image, which means if you remove the adjustment layer, the image returns to its previous state. Not only that, once you use layers, you can save your work as a PSD and create a document with everything you've used also preserved. You can go back into it at any time and make further adjustments knowing that the base original has not been affected.

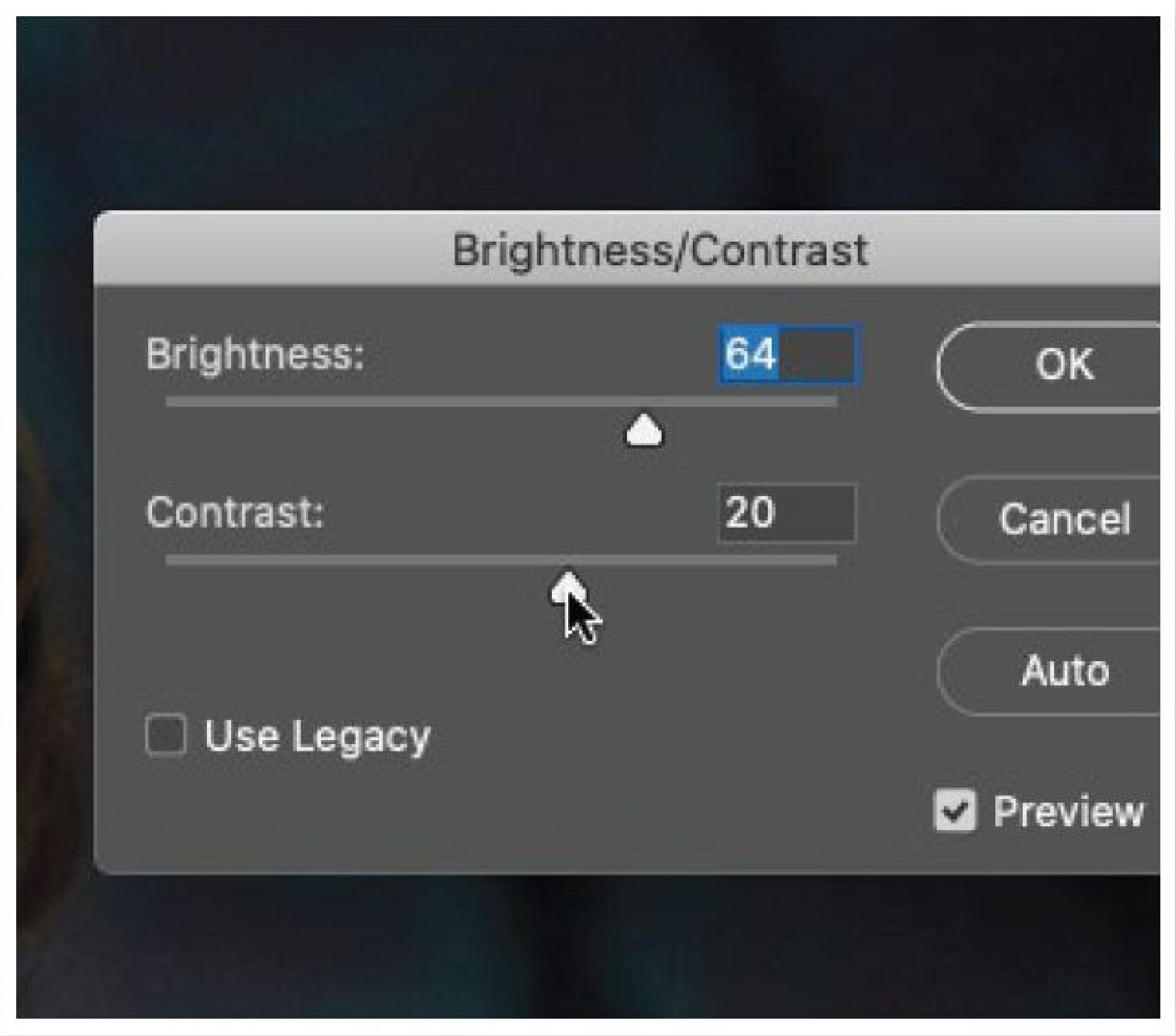




01 Let's take a fairly typical example as our first step into adjustment layers. We have a photograph of a young lady taken indoors. The image is a bit underexposed and lacking any real punch and colour. That's ok, we can use adjustment layers to help us.



02 The image can remain as a locked Background layer. If you go to the Layer Options panel, click on the Create New Fill or Adjustment Layer button and choose Brightness/Contrast from the list that appears. An adjustment layer will now appear above your main image.



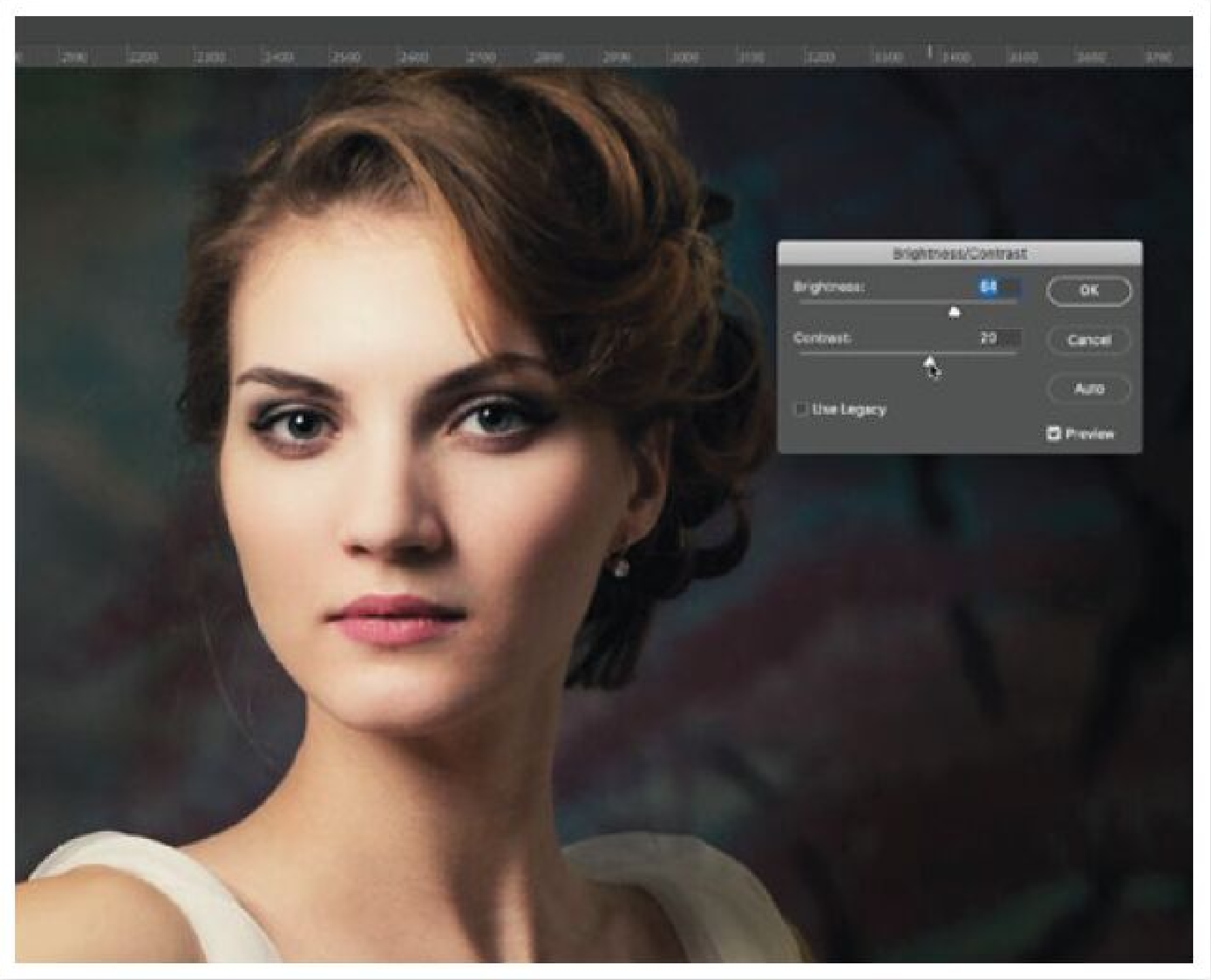
Brightness: 64

Contrast: 20

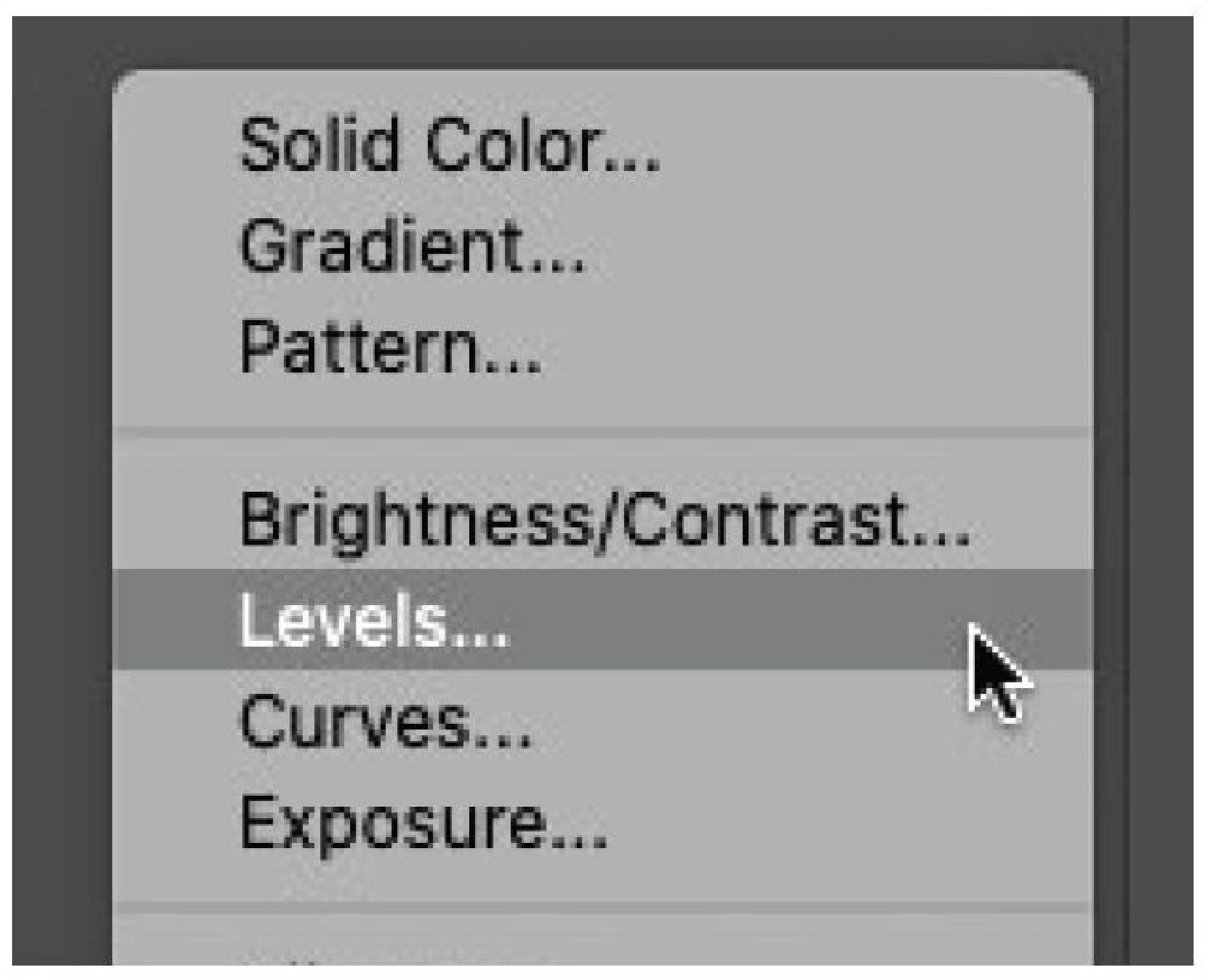
☐ Use Legacy

☑ Preview

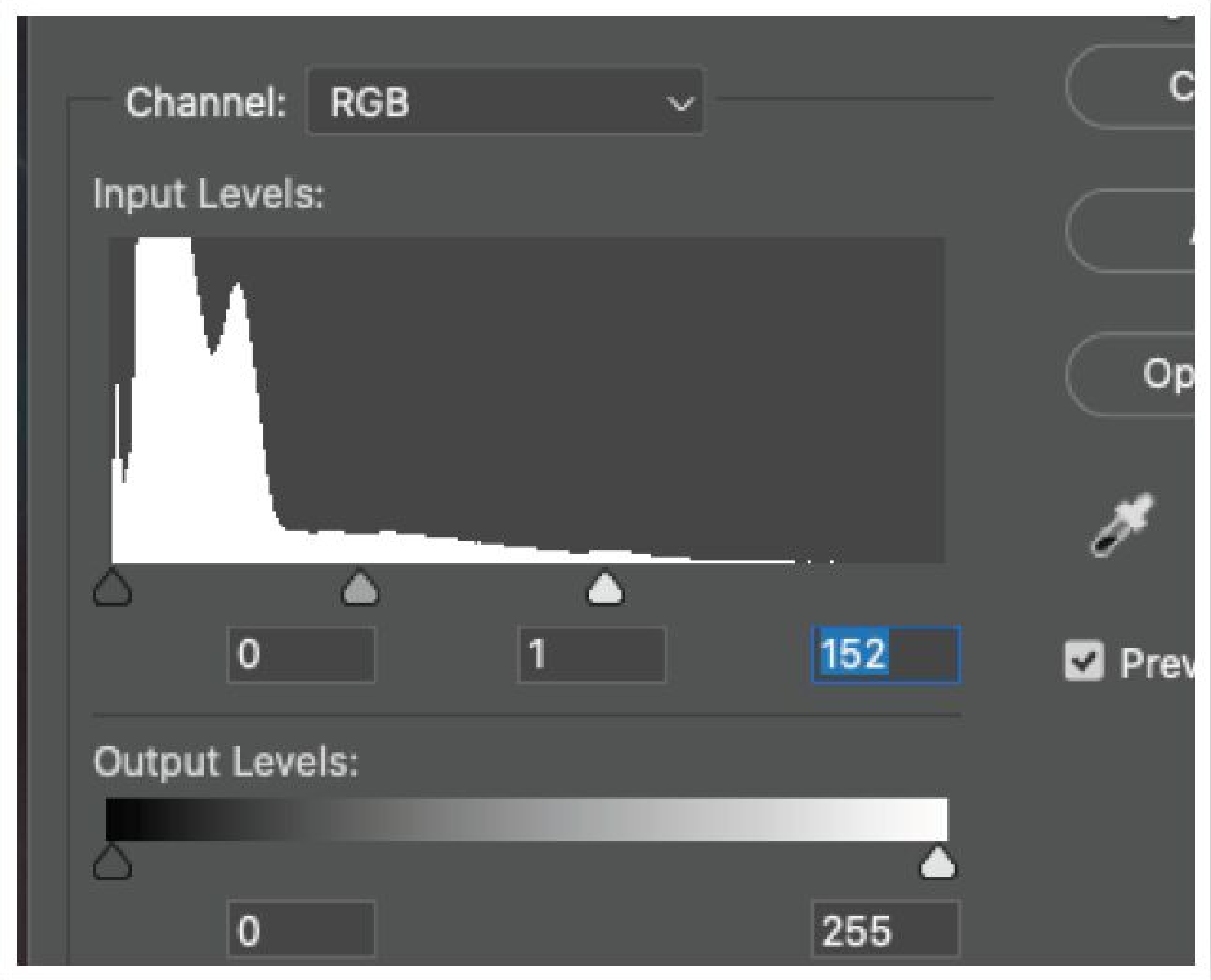
03 If the Properties panel does not automatically appear, simply double-click the adjustment layer thumbnail (not the mask) and the properties panel will appear for that particular adjustment; in this case, two sliders that control Brightness and Contrast.



04 This image looks better after a +50 boost to the Brightness along with a small -8 adjustment to the Contrast. The problem is that the darkest areas still look too black with not much visible detail. There is another adjustment that can help out in this case.



05 Click on the Create New Fill or Adjustment Layer again and choose Levels to add a Levels 1 adjustment above Brightness/Contrast 1. Levels gives you more control, of any shadows, midtones and highlights in the image, than Brightness and Contrast alone can offer.



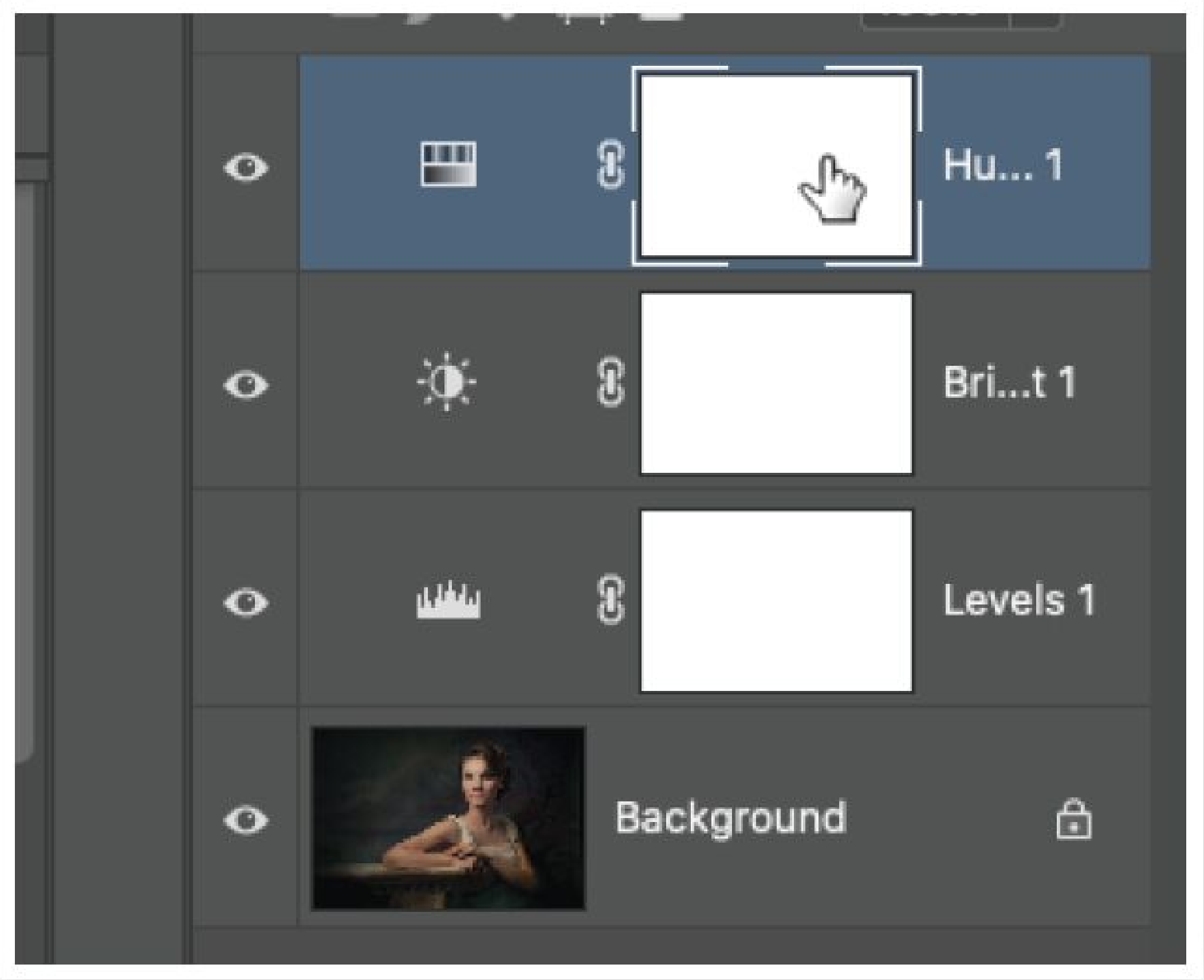
Channel: RGB

Input Levels: 0 1 152

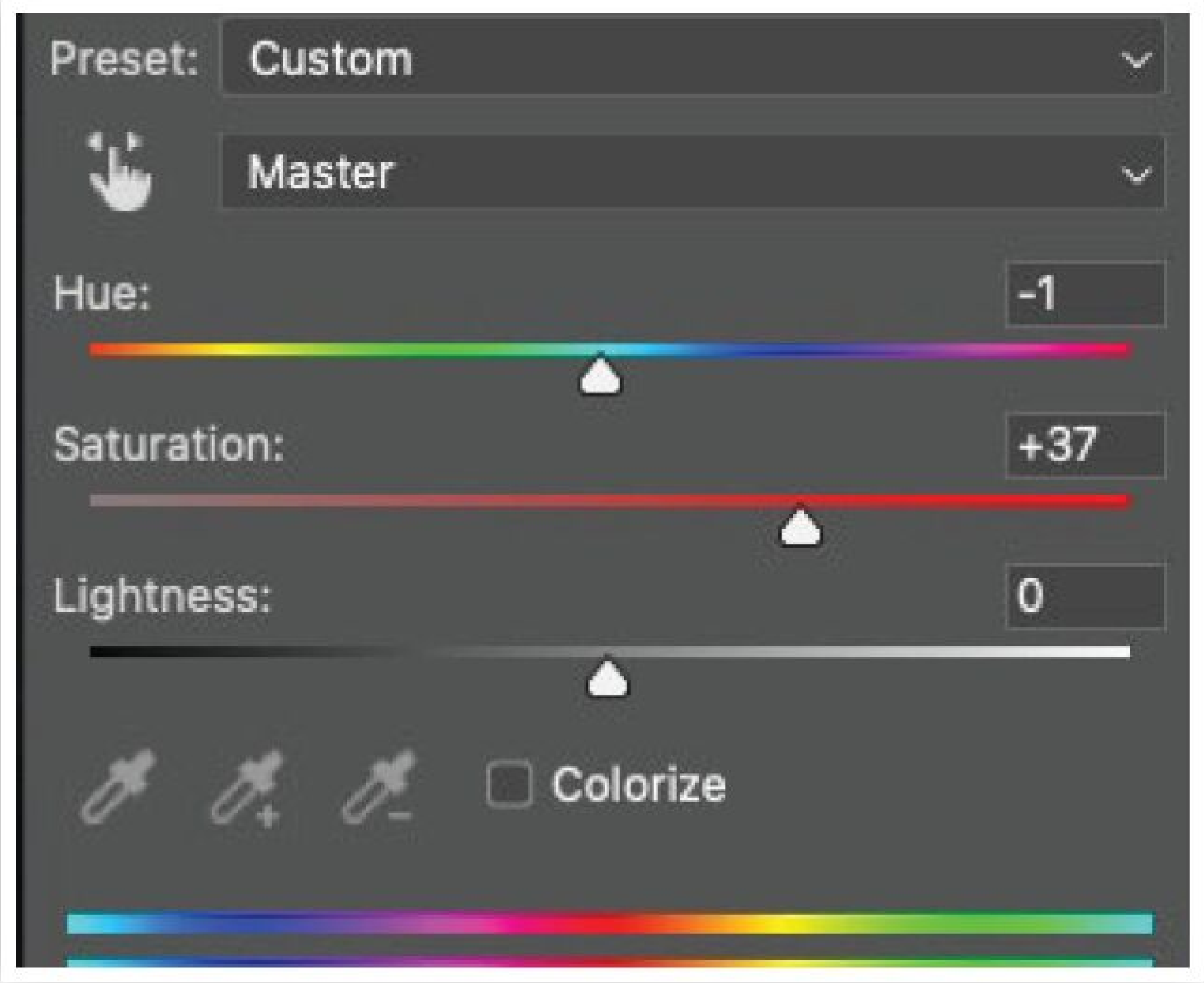
Output Levels: 0 255

☑ Prev

06 Click on the middle slider and move it to the left, all the middle tones will get lighter. You can also move the Black Point slider below slightly to the right, to remap solid black to progressively lighter tones. The darker areas should now show more detail.



07 Now we can address the colour in the image. At the moment, all the colours look a little subdued. We can boost the vibrancy of the image with another adjustment layer. This time, choose Hue/Saturation and add that to the top of the growing layer stack.



Preset: Custom

Master

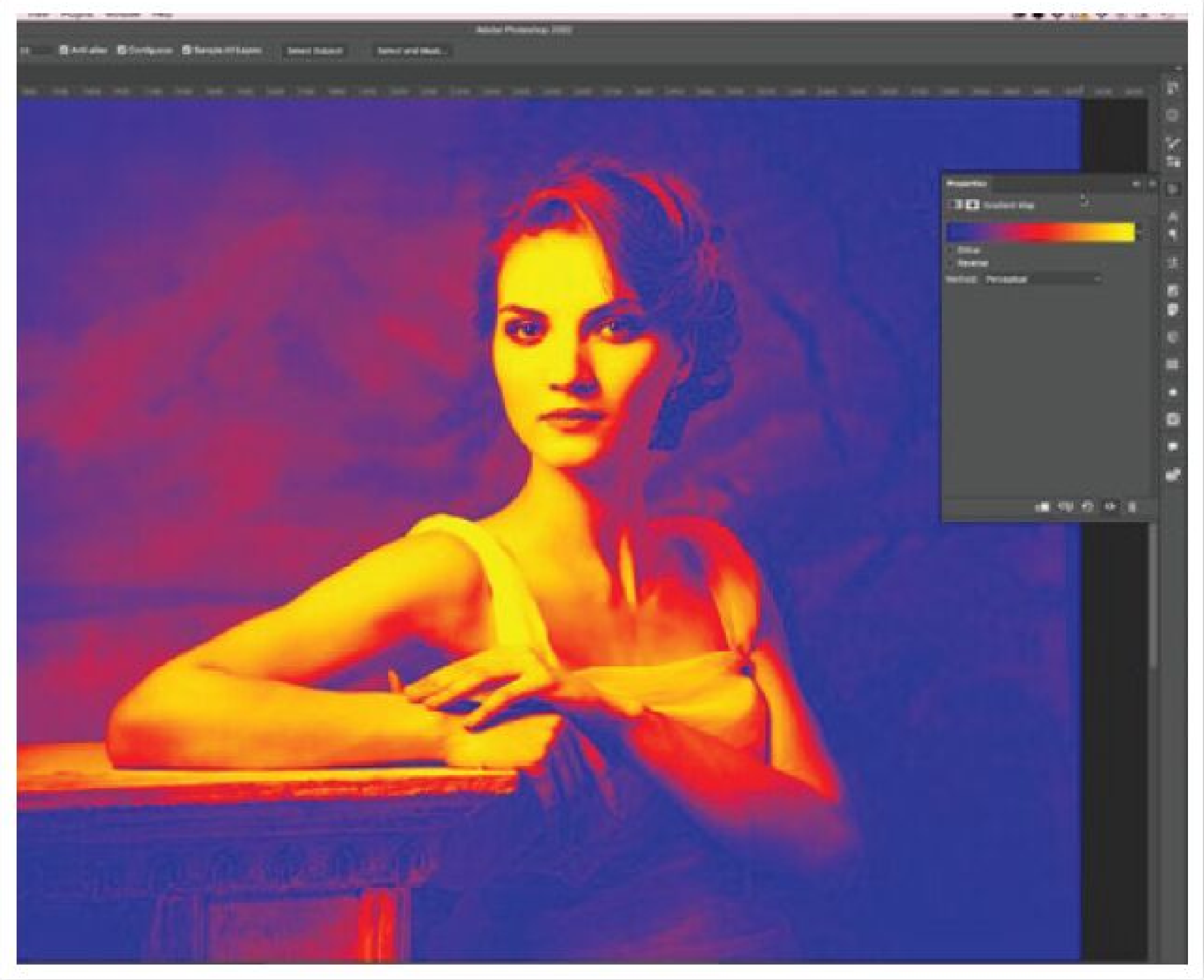
Hue: -1

Saturation: +37

Lightness: 0

☐ Colorize

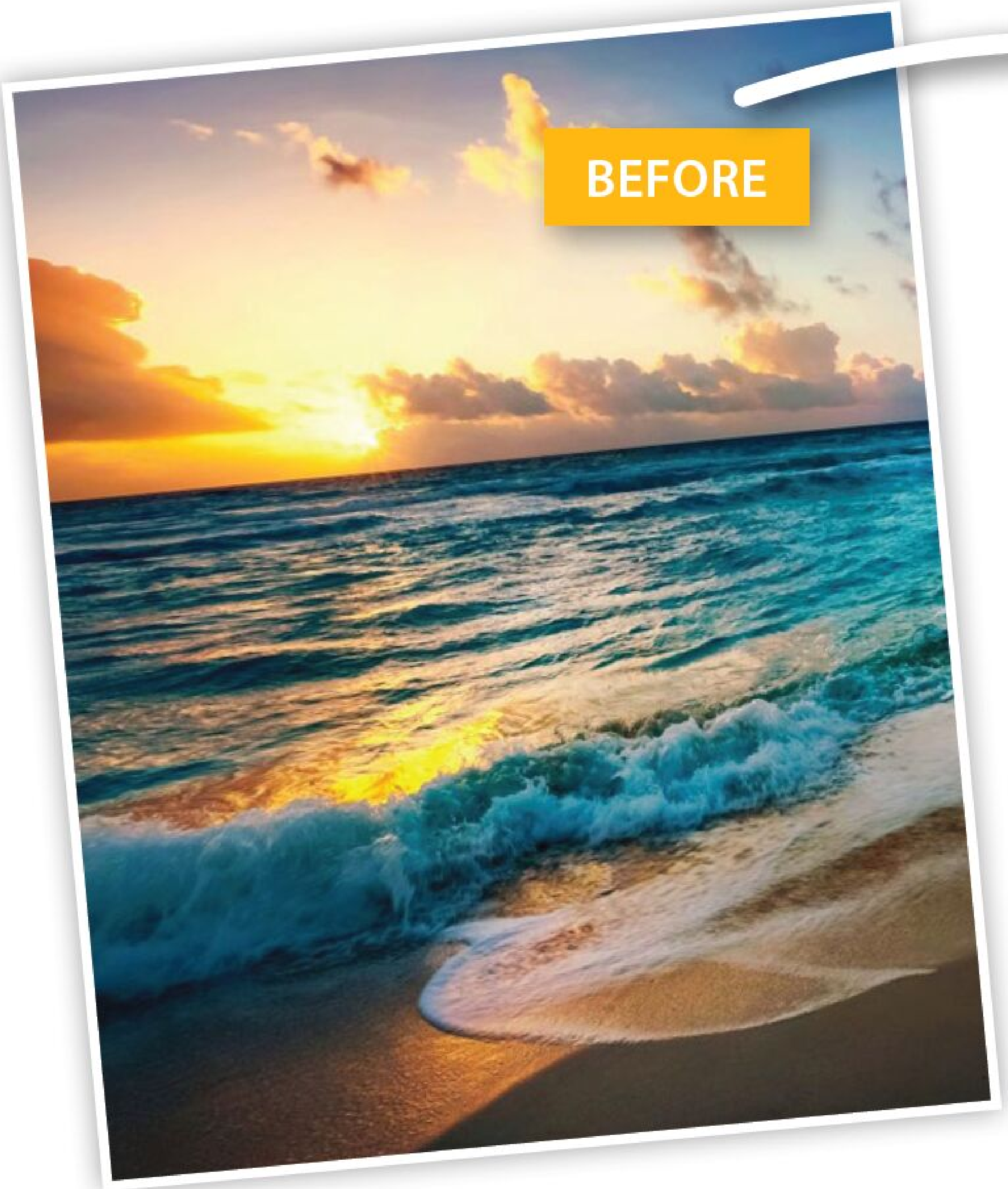
08 How much you decide to boost saturation is purely down to personal taste. In this case, the Hue has a +5 adjustment, Saturation is +49 and Lightness +6. Because these adjustments are all on layers, they can be modified or removed at any time with no issue.

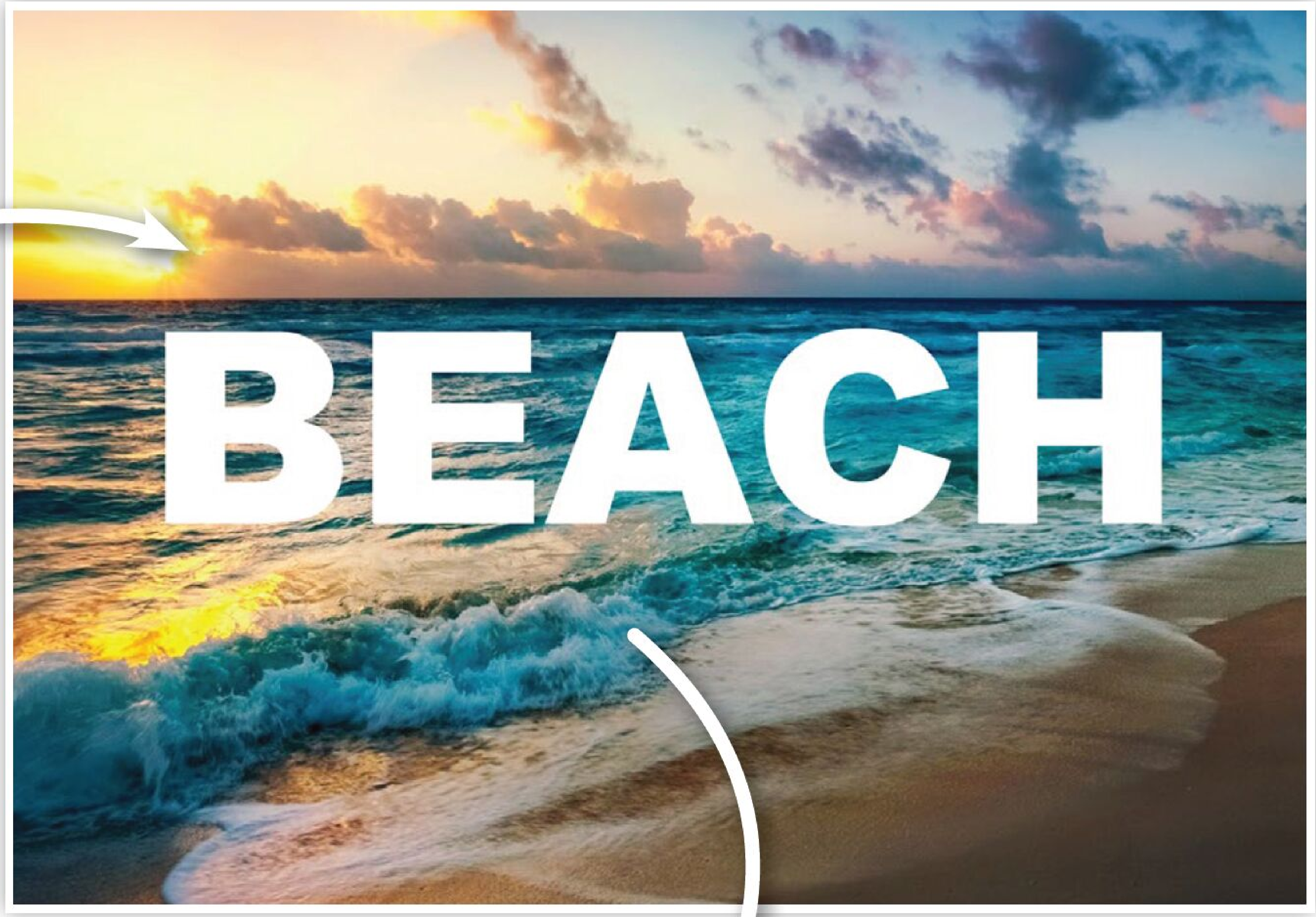


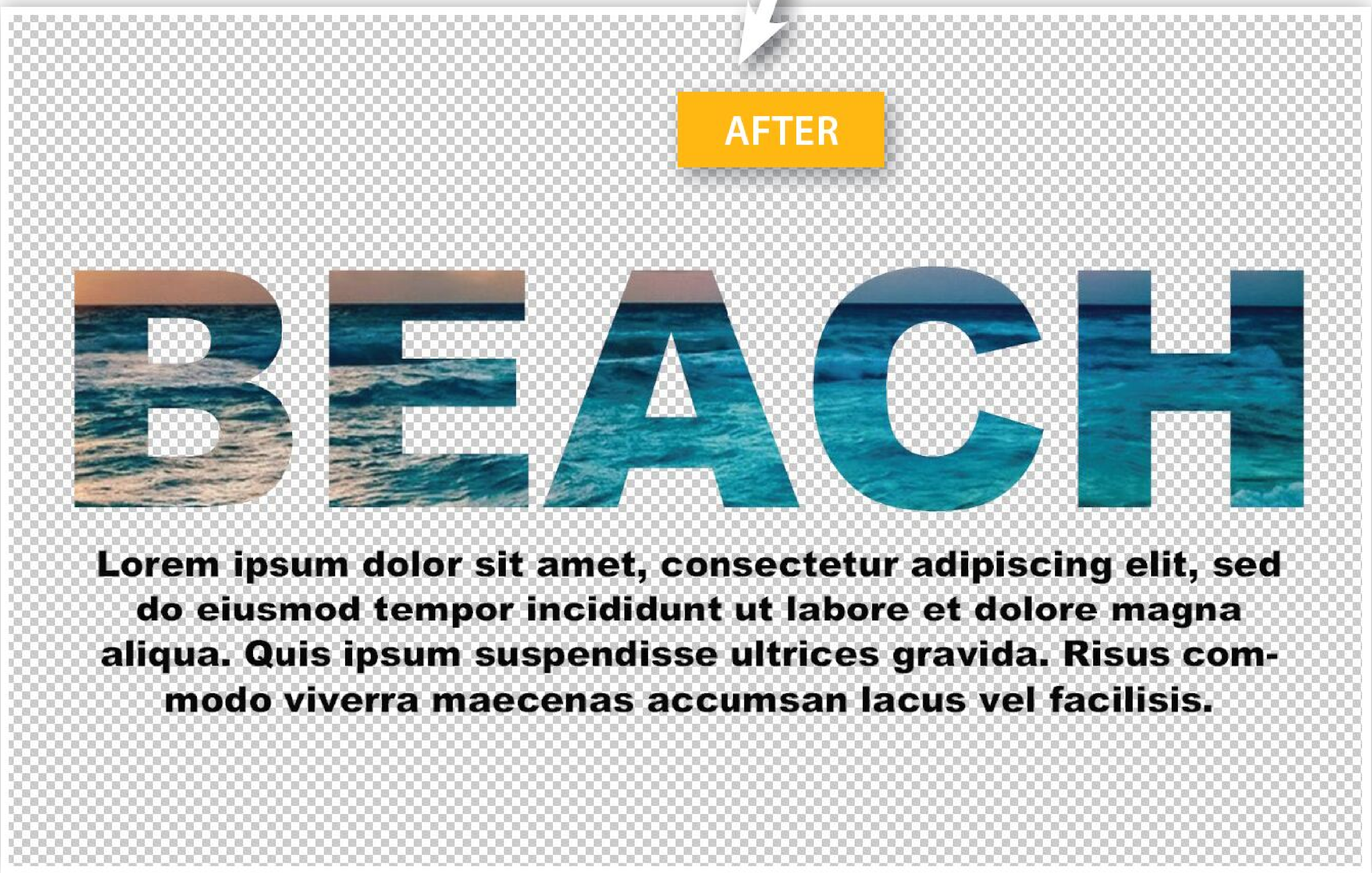
09 You aren't limited to standard adjustments either. If you wish, you can experiment with Things like Gradient Map. This uses several colours initially, to replace the lightest and darkest tones in the photo. In this case dark purple blends into red, then orange, then bright yellow.

Your First Type Tool Project

Get to know what the various Type Tool options can do to really lift your artwork

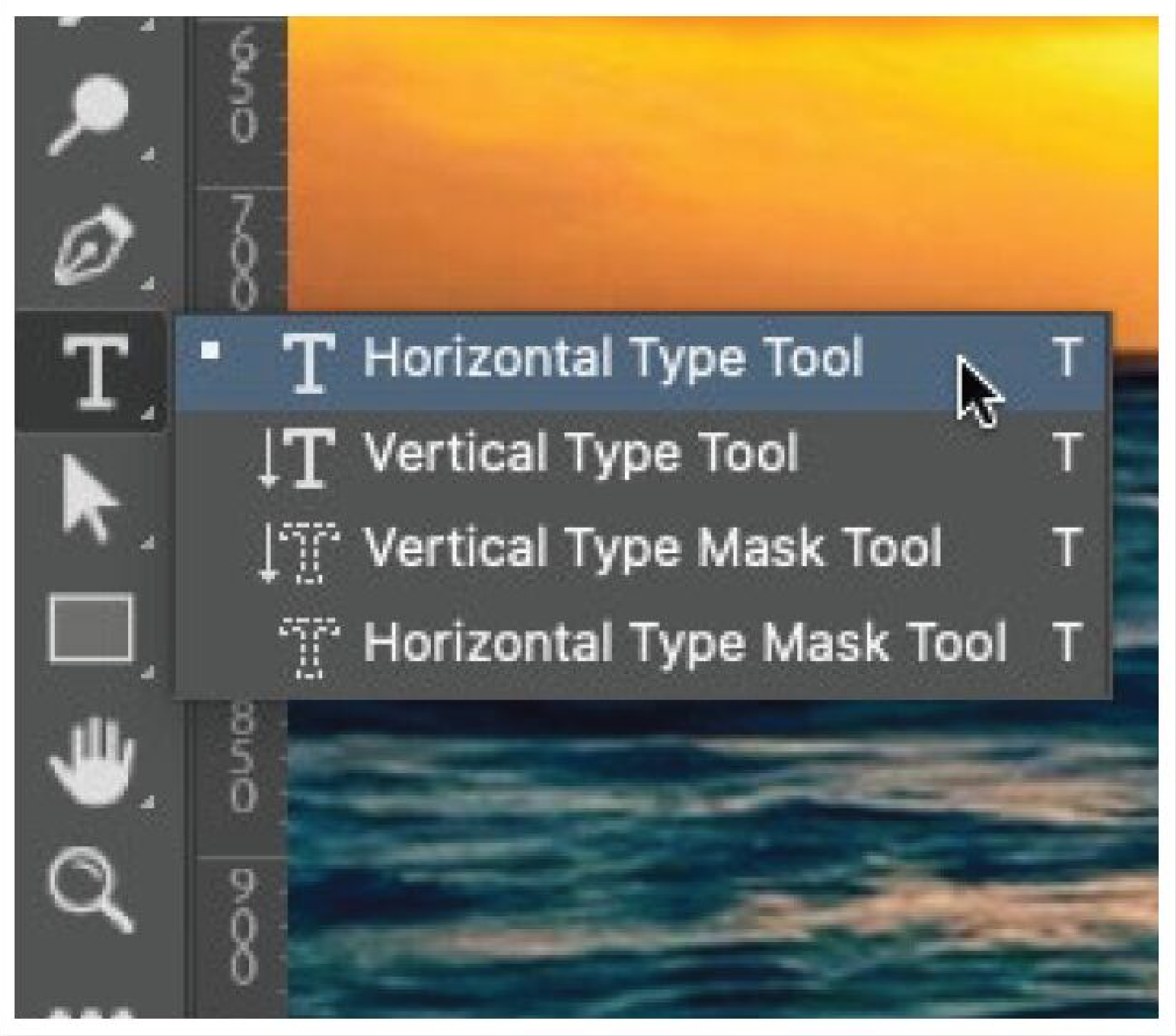




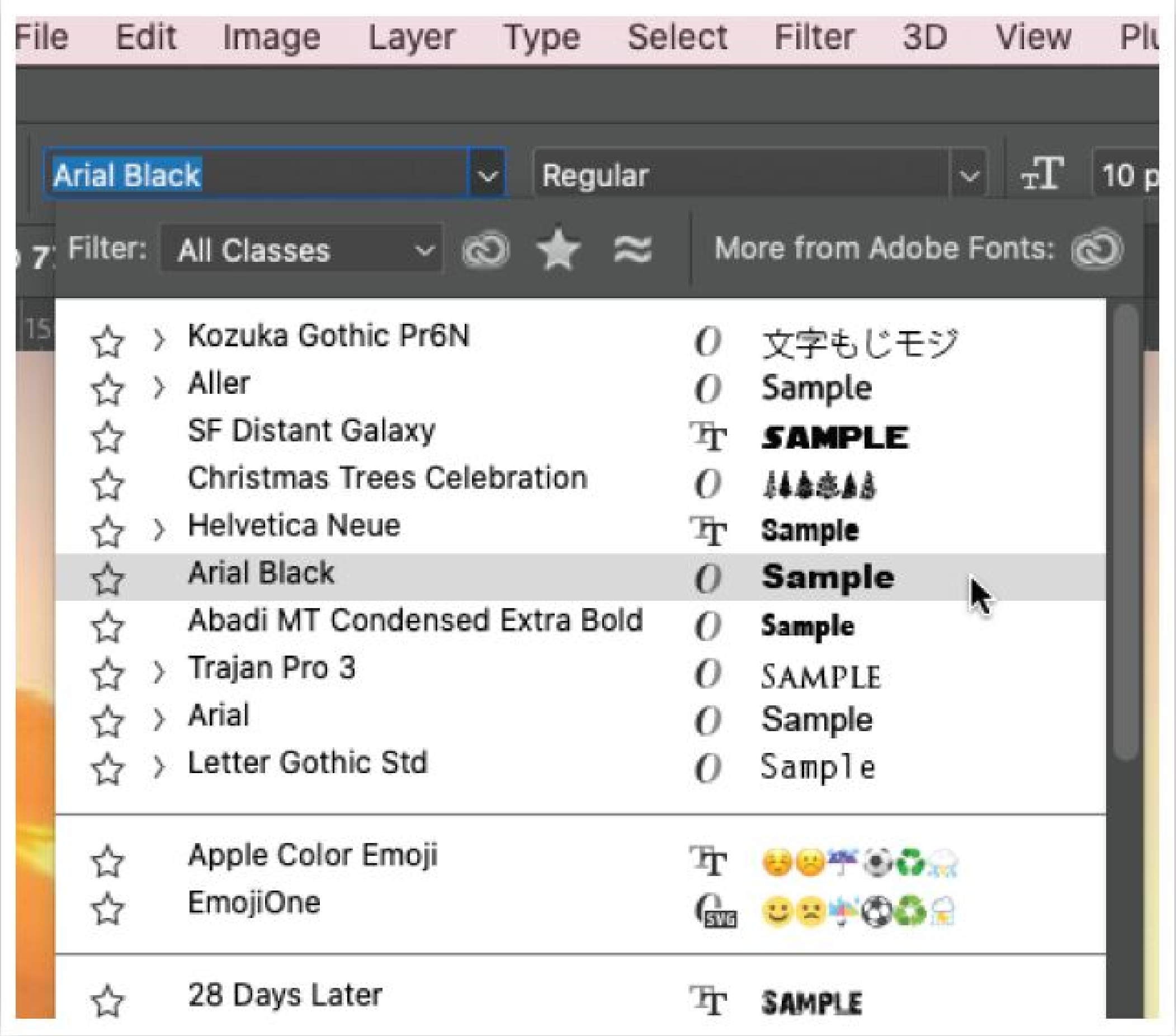


Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Quis ipsum suspendisse ultrices gravida. Risus commodo viverra maecenas accumsan lacus vel facilisis.

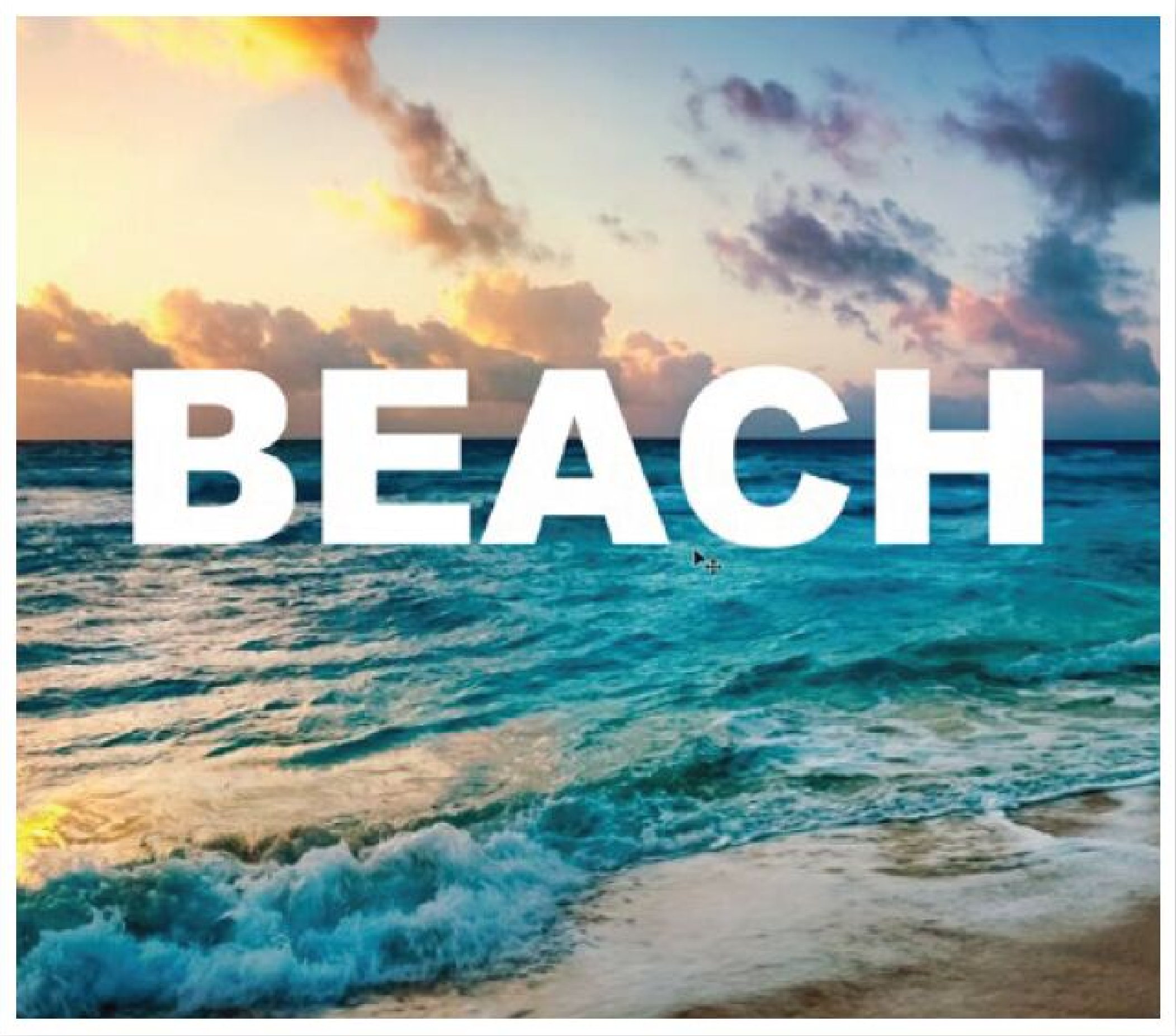
The introduction of text and type effects in Photoshop now means that you can create cool logos or even documents with paragraphs of text in them, if you want. Although you don't have the more complex control of text that you might have in desktop publishing programs such as InDesign, you can still produce simple text layouts, and other effects with relative ease, thanks to a set of useful tools and text controls. You can produce normal horizontal text and vertical text if required, and you can also use both vertical and horizontal text to create masks. The only limiting factor is the number of fonts you carry on your system. The more fonts you have, the more choice you have.


Horizontal Type Tool T
Vertical Type Tool T
Vertical Type Mask Tool T
Horizontal Type Mask Tool T

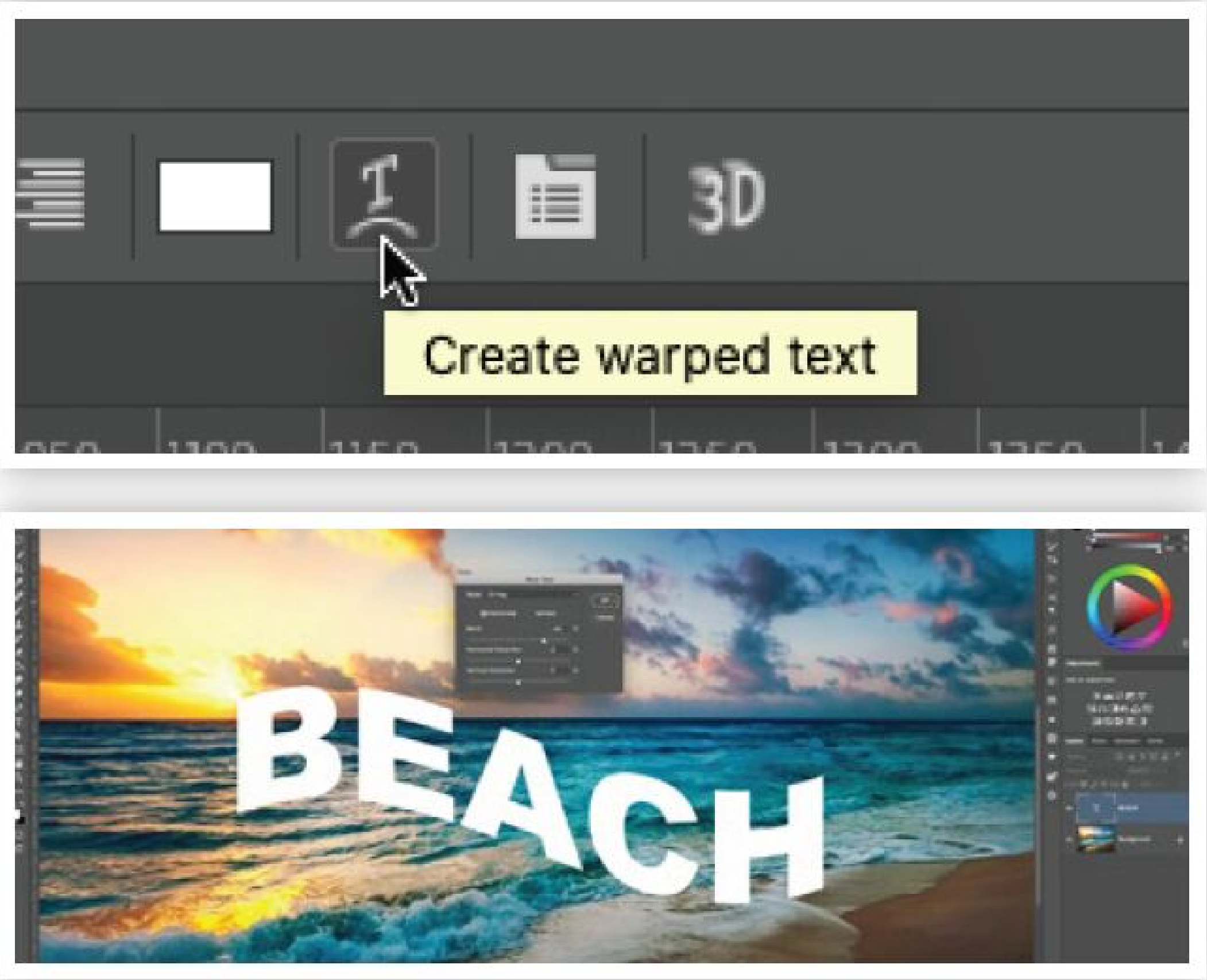
01 Having opened an image, in the form of a photo of a sunset beach, we want to incorporate it with some text in order to use it as a title graphic. To access the Type tools, we need to go to the toolbar on the right and click on the Horizontal Type Tool (T).


File Edit Image Layer Type Select Filter 3D View
Arial Black
Regular
Filter: All Classes
More from Adobe Fonts:
Kozuka Gothic Pr6N 文字もじモジ
Aller Sample
SF Distant Galaxy SAMPLE
Christmas Trees Celebration
Helvetica Neue Sample
Arial Black Sample
Abadi MT Condensed Extra Bold Sample
Trajan Pro 3 SAMPLE
Arial Sample
Letter Gothic Std Sample
Apple Color Emoji
EmojiOne
28 Days Later SAMPLE

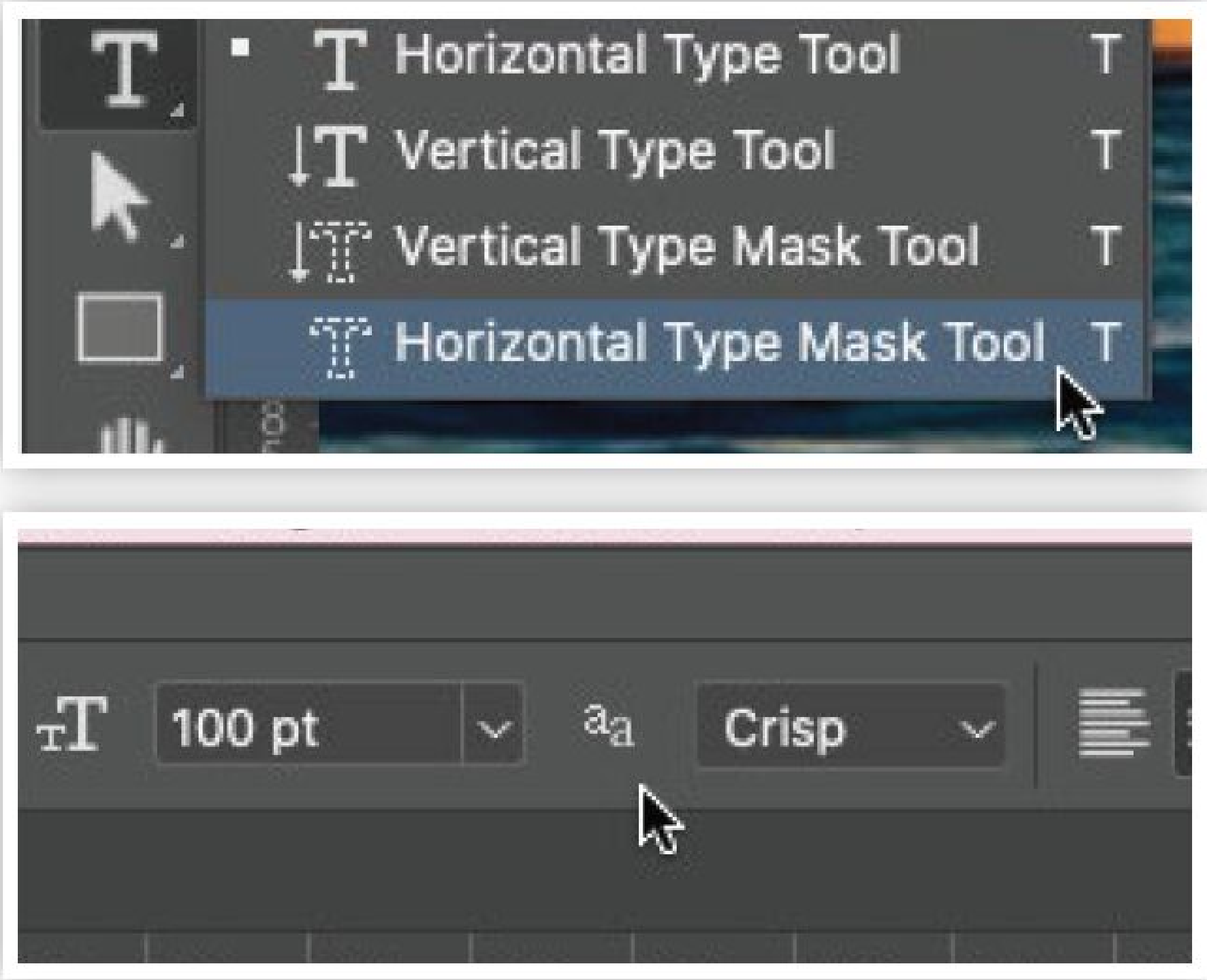
02 When you click on the Type tool, your options menu at the top of your screen will reflect what is available for that specific tool. In this case, you can choose your font, the weight of that font and the size you want it to be, along with some other basic options.



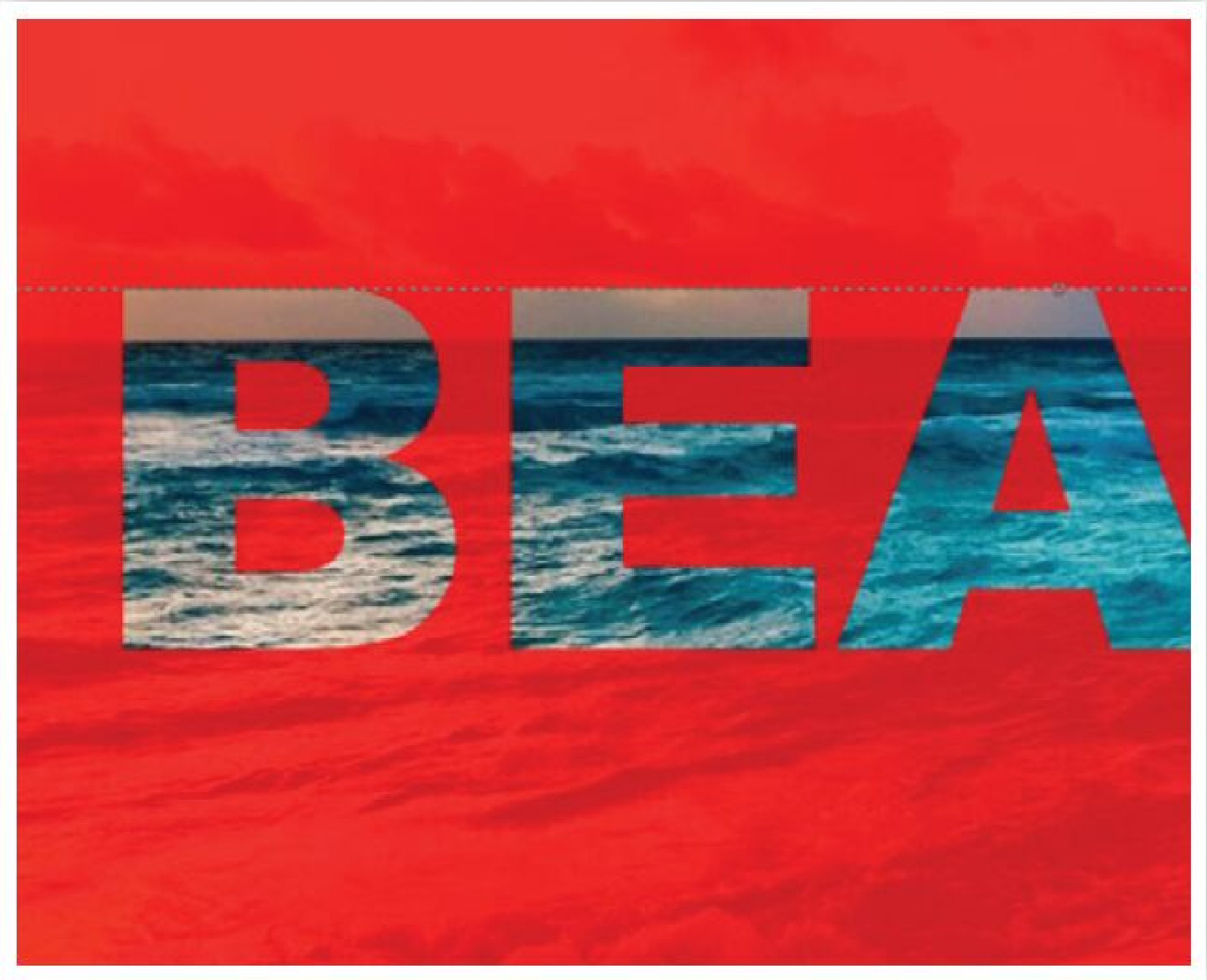
03 If you drag an area with the Type tool on your image, it will automatically create a new text layer and then display some default text to show you what it looks like in your chosen font and size. We can then type in whatever text we want to use; we have simply typed 'BEACH'.


3D
Create warped text
BEACH

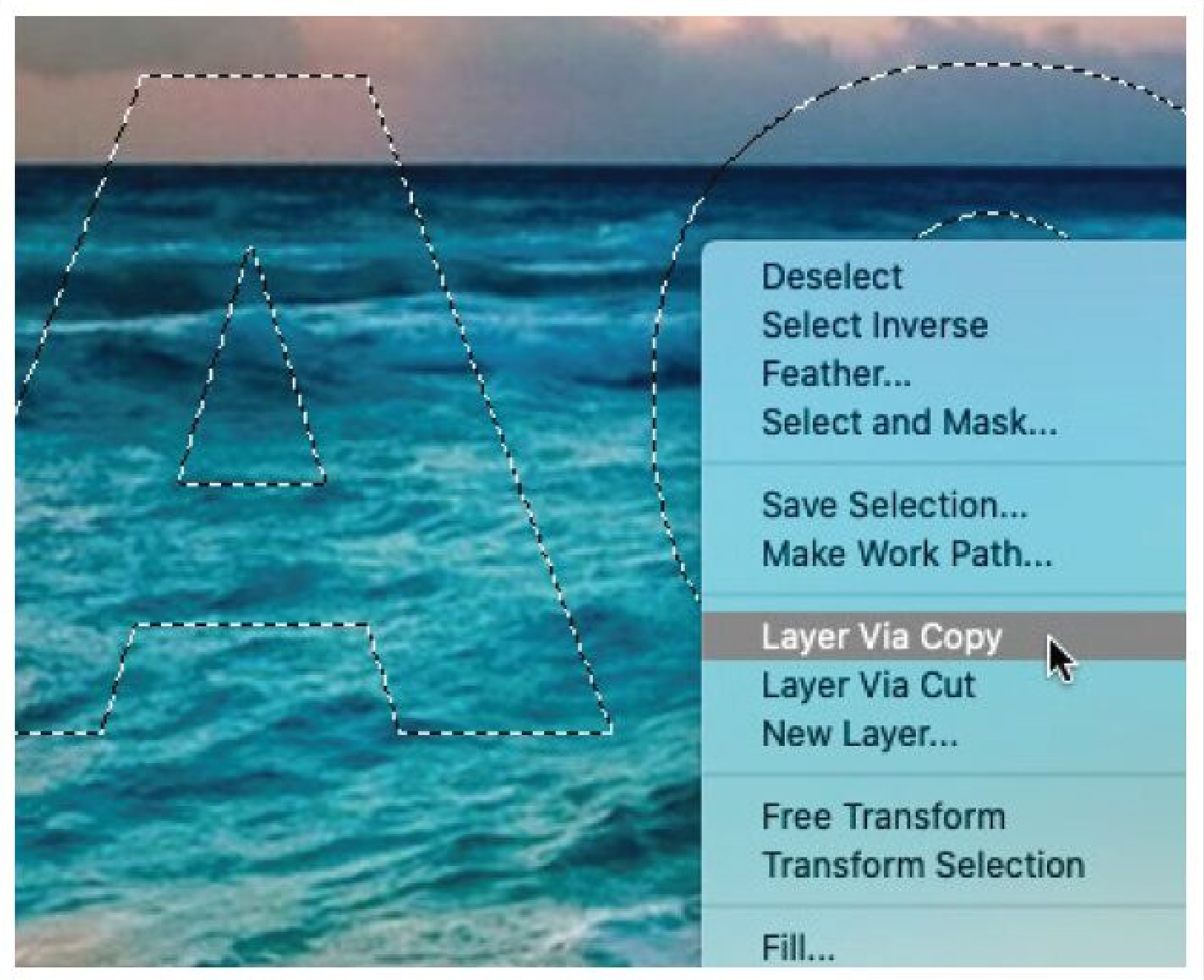
04 If you highlight your text, you can add some Warp Text effects by clicking on the icon in the options menu. Here, you can choose from a number of effects such as Arc, Bulge, Fisheye and Flag. Our example is a simple Wave effect with sliders to control Bend and Distortion.


Horizontal Type Tool T
Vertical Type Tool T
Vertical Type Mask Tool T
Horizontal Type Mask Tool T
100 pt
Crisp

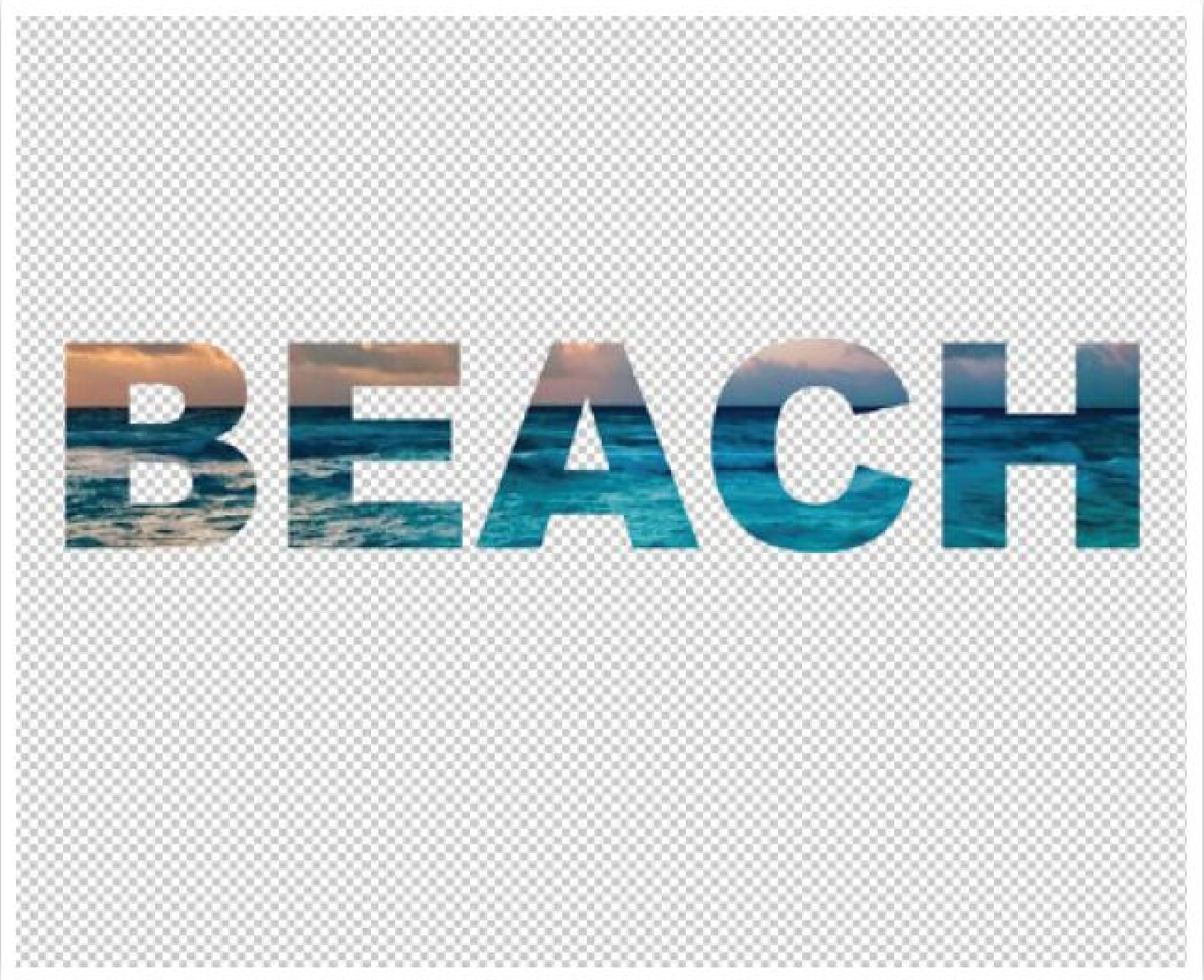
05 That was one option. Now, to use text to create a mask, go to the toolbar again and, this time, choose the Horizontal Type Mask Tool (T). We have dragged out a text box over the flowers and typed the word 'BEACH' again in large text. We can move/scale the text box if necessary.



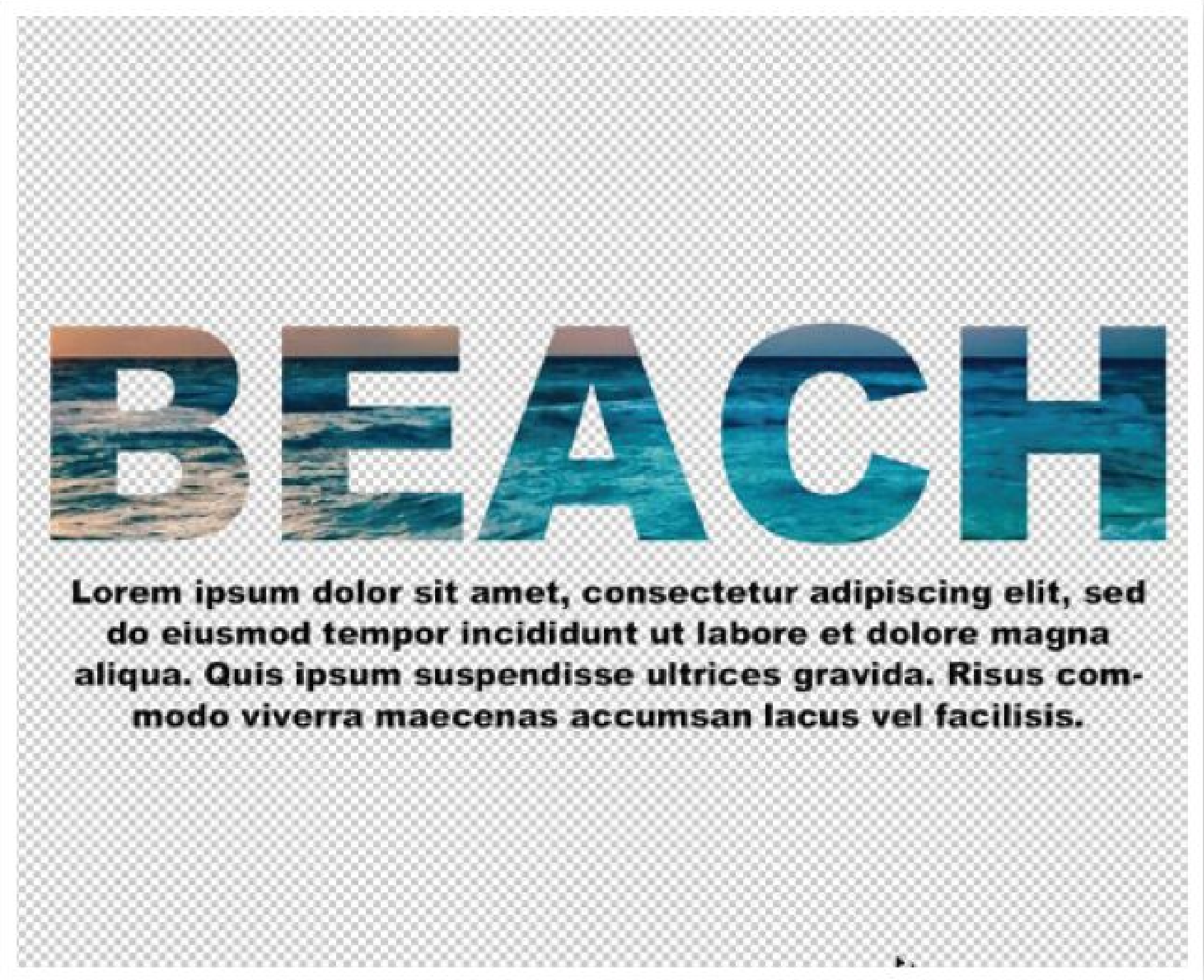
06 You will see that the area inside the text shows the image clearly. Anything shown that is outside the text is currently coloured red, which means when you move on to the next stage of the masking process, using this text mask, it will not be selected.


Deselect
Select Inverse
Feather...
Select and Mask...
Save Selection...
Make Work Path...
Layer Via Copy
Layer Via Cut
New Layer...
Free Transform
Transform Selection
Fill...

07 Click on the Commit Changes button, the text will turn into an active selection. At this point, you have a couple of options. You can click on a selection tool like the Lasso Tool, right-click the selection, then choose Layer Via Copy to copy the area inside the text to a new layer.



08 If you prefer, you can go to the layer options panel and choose Add A Mask. This will mask the entire image of the beach scene, leaving only the area inside the selection visible. When masking, remember that white reveals and black conceals.

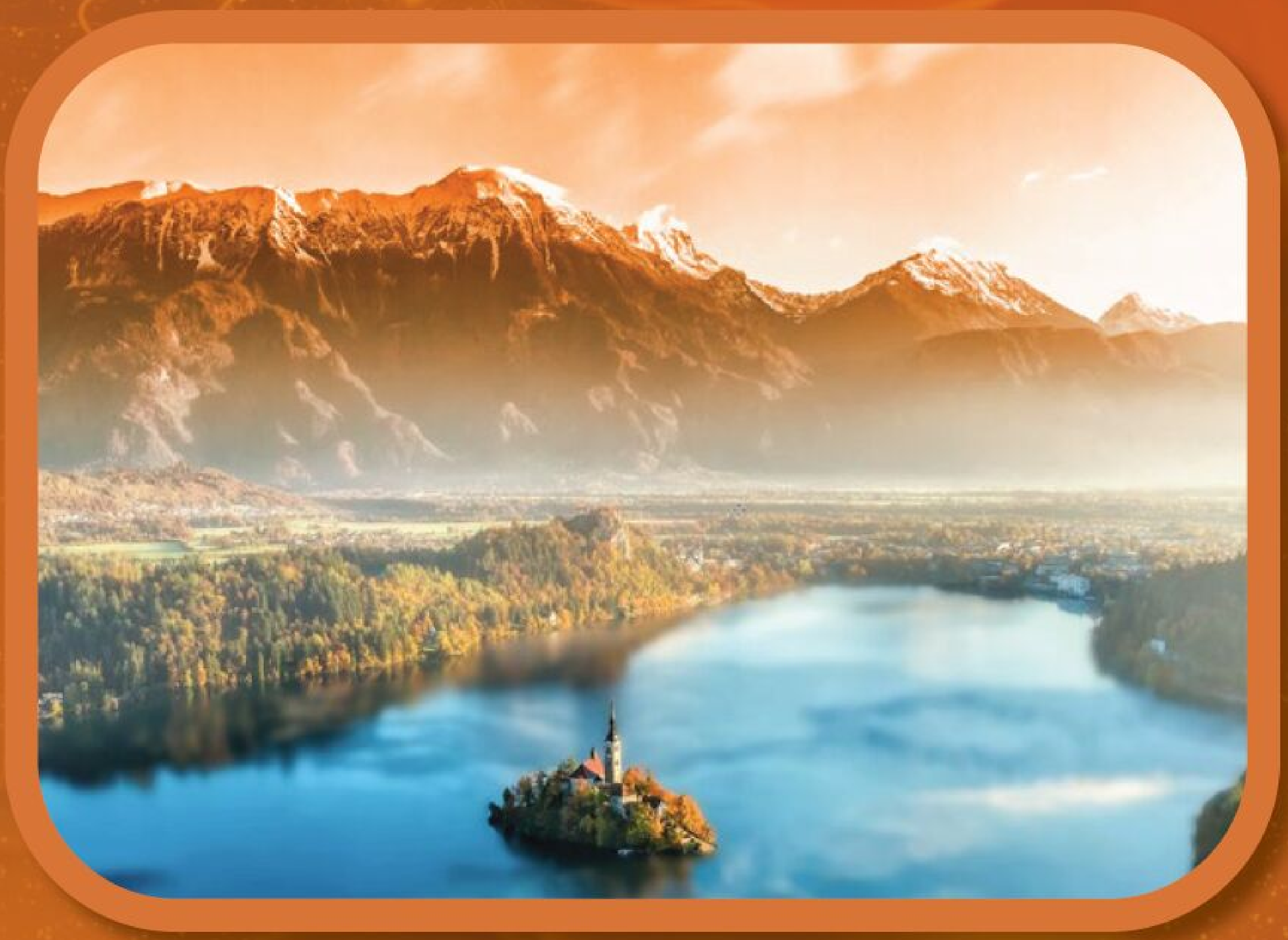


Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Quis ipsum suspendisse ultrices gravida. Risus commodo viverra maecenas accumsan lacus vel facilisis.

09 As mentioned, you can also create paragraphs of text by dragging out a text box of the size you want. Placeholder text will appear in the box and you can then use the Character and Paragraph properties to format your text to suit your preferences.

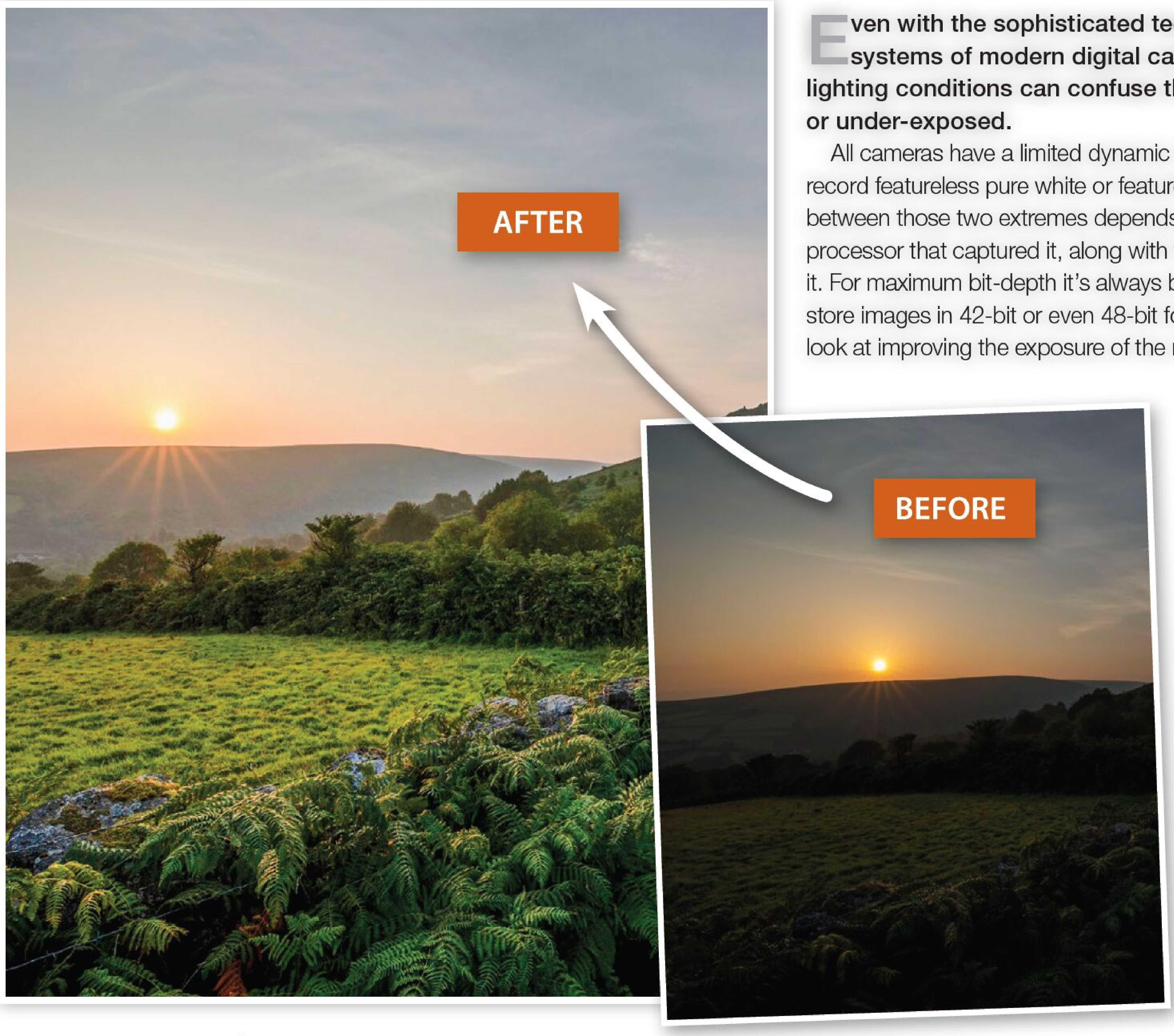
Learn and Improve

Like many new skills, Photoshop may be easy to learn, but more challenging to master. All it takes is time, patience and the willingness to learn. After taking a look at the some of the essential aspects of Photoshop, let's get you trying a few more techniques and tools to add to your skill set. Every new skill takes you closer to being a confident and experienced user.



Adjusting Exposure

Correcting your exposure mistakes is easy with Photoshop


AFTER
BEFORE

Even with the sophisticated technology found in the light metering systems of modern digital cameras, they are not infallible. Some lighting conditions can confuse them, resulting in pictures that are over or under-exposed.

All cameras have a limited dynamic range, levels of illumination at which they record featureless pure white or featureless pure black. The tonal variation available between those two extremes depends on the quality of the lens, sensor and image processor that captured it, along with the bit-depth of the file type used to record it. For maximum bit-depth it's always best to use Raw mode, since this will usually store images in 42-bit or even 48-bit form, capturing greater dynamic range. We'll look at improving the exposure of the more common JPEG images from a compact camera. JPEG images are usually only 24-bit, so have less latitude for any exposure recovery.

Over-exposure tends to be more of a problem than under-exposure, since burned-out highlights contain no detail, but the JPEG format is surprisingly good at capturing detail in areas that might initially look like featureless black. As a result it's often possible to rescue shots that are quite badly under-exposed, although this will also amplify any noise in the image, so there is a trade-off for image quality.

This shot was taken using centre-weighted metering against backlighting and as a result the bright part of the horizon is exposed reasonably well but the foreground is under-exposed. It would have been a better idea to use spot metering, but we can still rescue the photo using an image editing program.

Brightness/Contrast

The quickest and easiest way to brighten the photo is to simply turn up the brightness. You'll find Brightness/Contrast as an adjustment layer in the palette on the right, or in the Image > Adjustment menu. The Brightness/Contrast function in recent versions of Photoshop has been changed to improve contrast and tonal balance when adjusting the brightness of your images.

By moving the Brightness slider to the right, the overall brightness of the entire photo is increased, but the new algorithm retains a reasonable balance in shadow tones. You can tweak the effect with the Contrast slider, the result is reasonably acceptable.

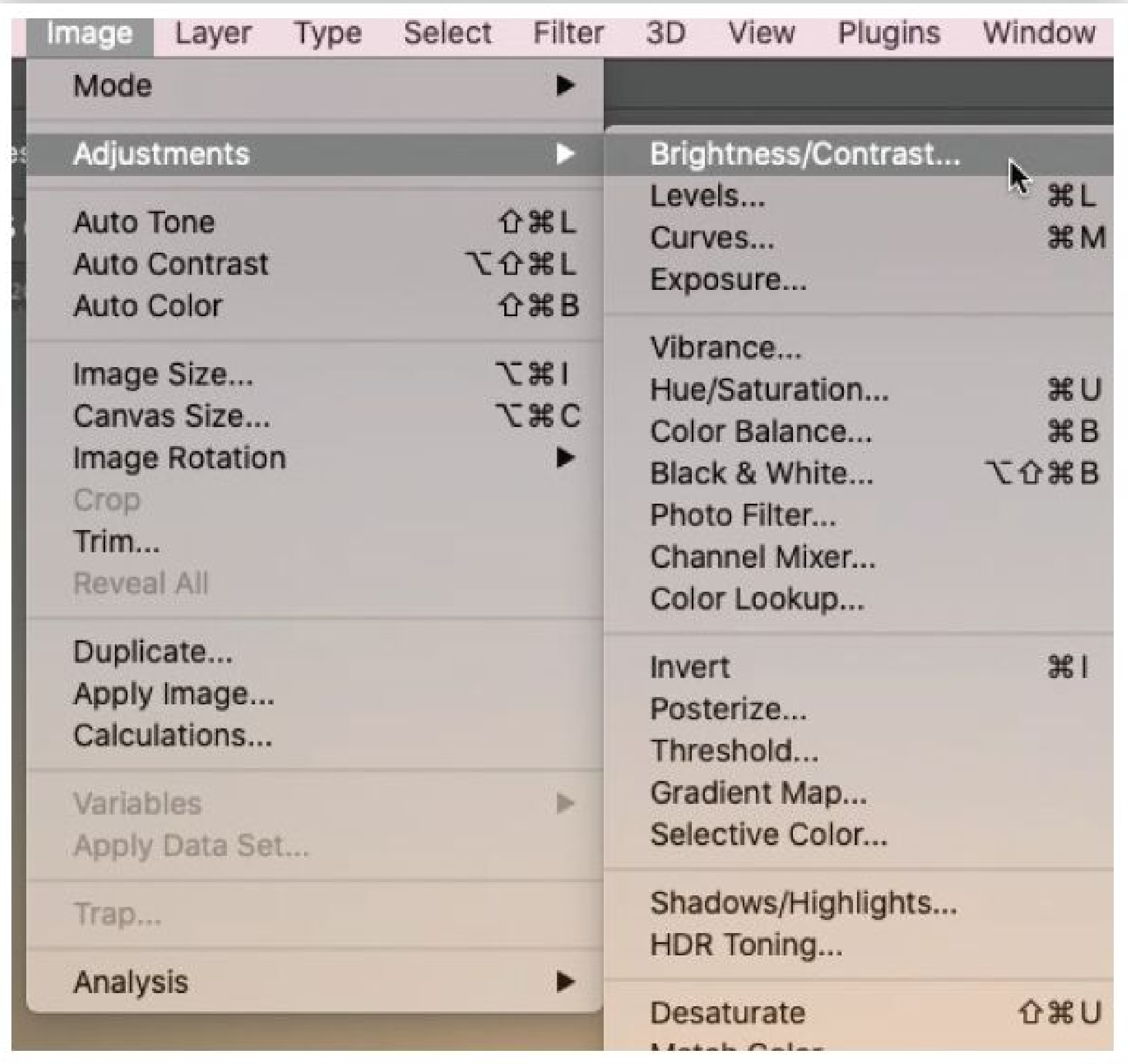
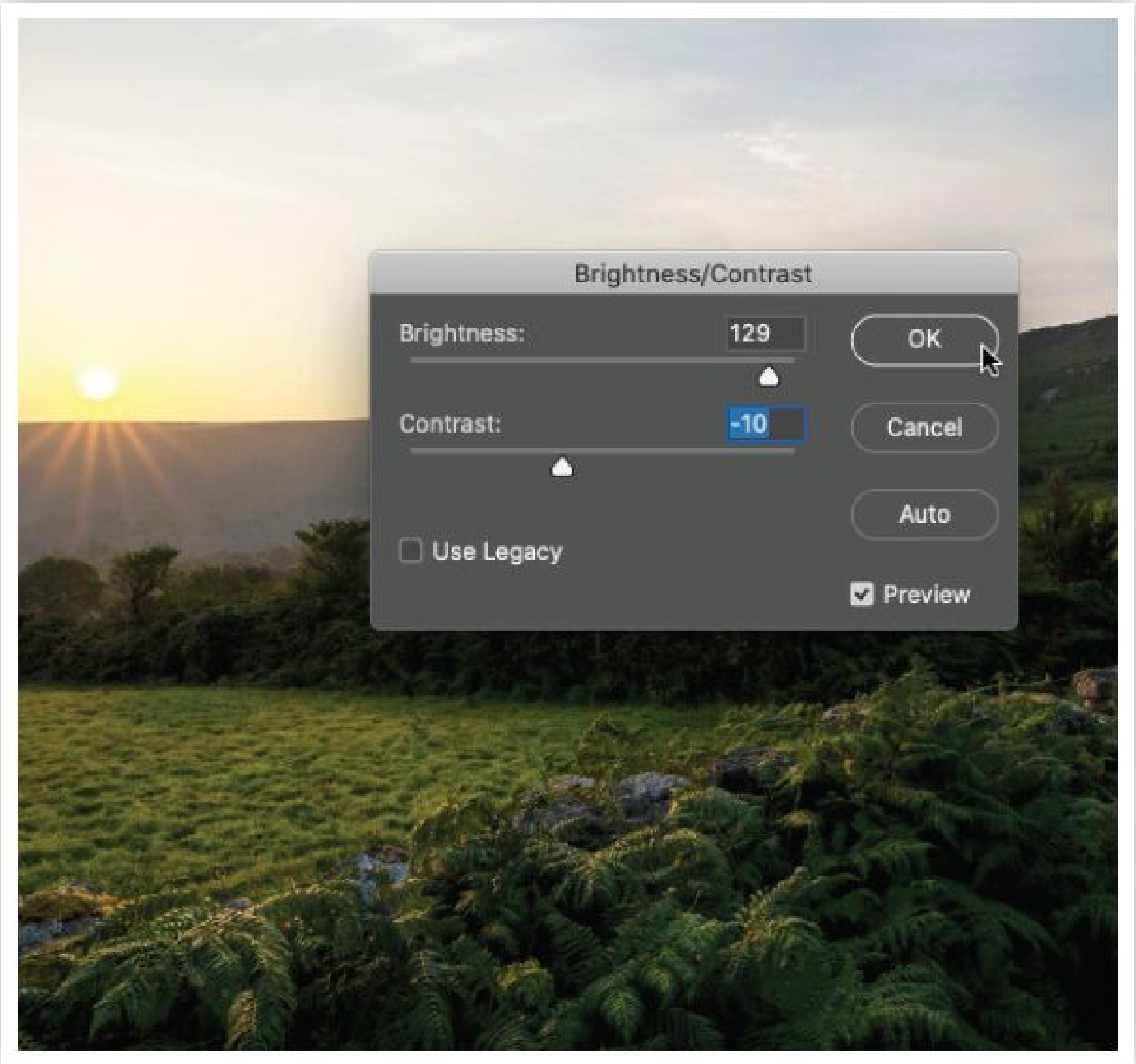


Image
Layer
Type
Select
Filter
3D
View
Plugins
Window
Mode
Adjustments
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation
Crop
Trim...
Reveal All
Duplicate...
Apply Image...
Calculations...
Variables
Apply Data Set...
Trap...
Analysis
Brightness/Contrast...
Levels... ⌘L
Curves... ⌘M
Exposure...
Vibrance...
Hue/Saturation... ⌘U
Color Balance... ⌘B
Black & White... ⌥⇧⌘B
Photo Filter...
Channel Mixer...
Color Lookup...
Invert ⌘I
Posterize...
Threshold...
Gradient Map...
Selective Color...
Shadows/Highlights...
HDR Toning...
Desaturate ⇧⌘U


Brightness/Contrast
OK
Cancel
Auto

Brightness: 129
Contrast: -10
☐ Use Legacy
☑ Preview

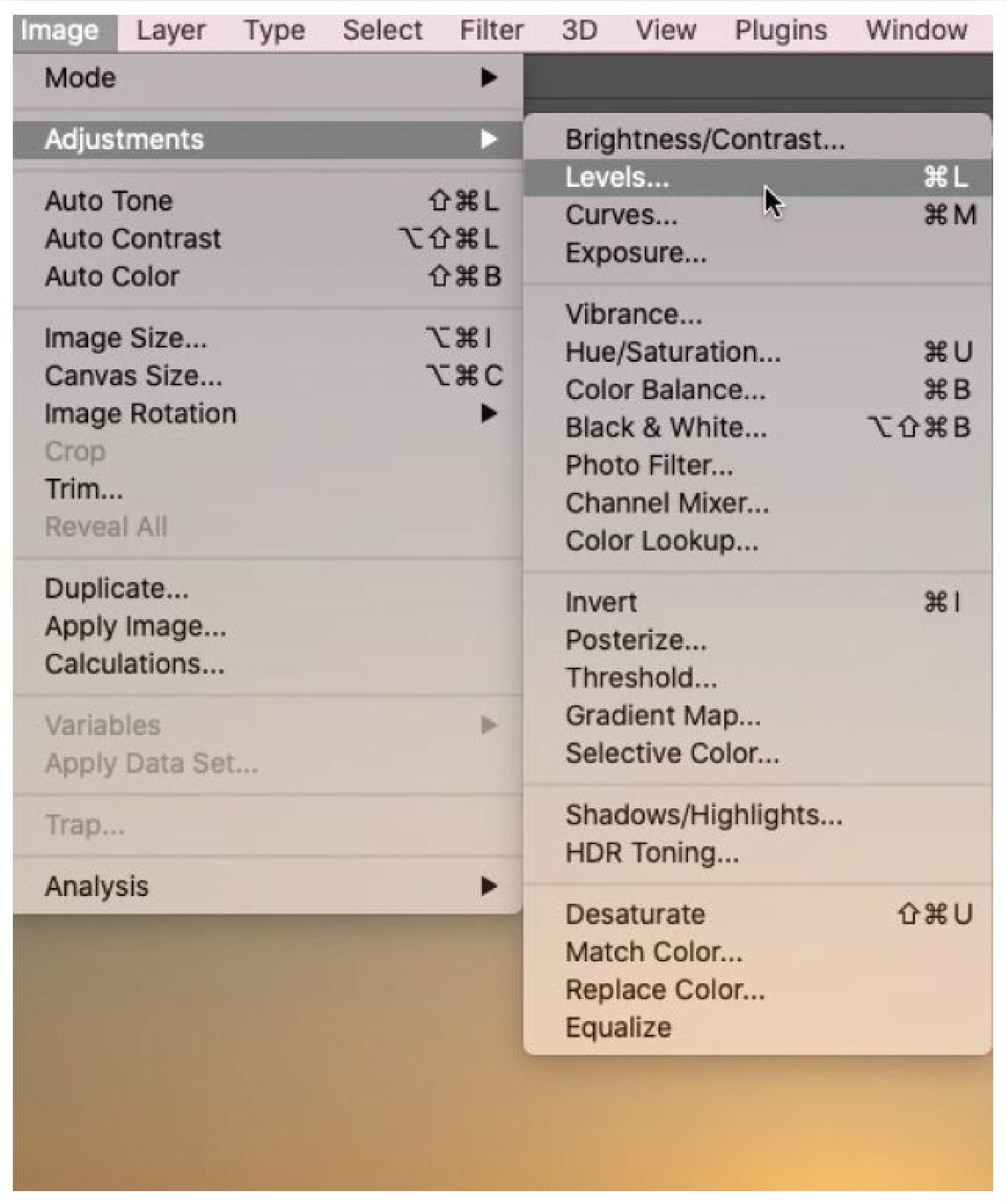
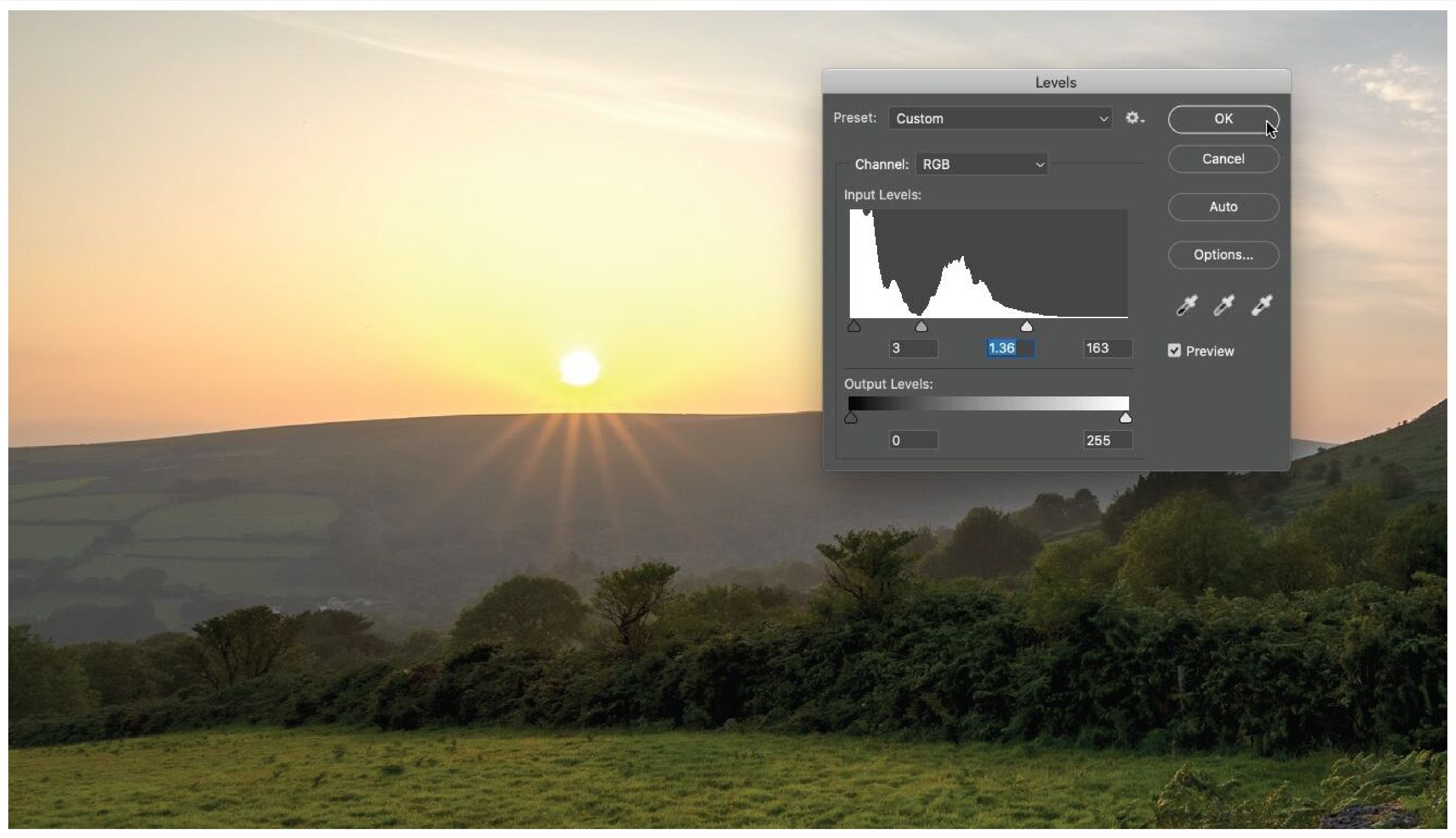


Image Layer Type Select Filter 3D View Plugins Window
Mode
Adjustments
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation
Crop
Trim...
Reveal All
Duplicate...
Apply Image...
Calculations...
Variables
Apply Data Set...
Trap...
Analysis
Brightness/Contrast...
Levels... ⌘L
Curves... ⌘M
Exposure...
Vibrance...
Hue/Saturation... ⌘U
Color Balance... ⌘B
Black & White... ⌥⇧⌘B
Photo Filter...
Channel Mixer...
Color Lookup...
Invert ⌘I
Posterize...
Threshold...
Gradient Map...
Selective Color...
Shadows/Highlights...
HDR Toning...
Desaturate ⇧⌘U
Match Color...
Replace Color...
Equalize


Preset: Custom
Channel: RGB
Input Levels: 3 1.36 163
Output Levels: 0 255
☑ Preview
Levels
OK
Cancel
Auto
Options...

Levels

Photoshop offers another way of altering brightness and contrast, but this time with more subtlety and control, by adjusting the Levels histogram. You'll find Levels in the same Image > Adjustment sub-menu as Brightness/Contrast. The Levels histogram is basically a graph showing the proportion of pixels in the image at each colour intensity. The far left-hand end of the graph represents black and the right-hand end is white, with every tone in between represented by a spike on the graph. On the bottom axis of the graph are three points, the left representing the black cut-off point, the right the white cut-off point and the one in the middle representing the mid-tone point.

As you can see from the graph our image is mostly shadows and mid-tones with little highlights, so we need to brighten some of those shadows into mid-tones. The way we do this is by moving the mid-tone and highlights points left towards the shadows. This has the effect of bringing out a lot of the detail from the shadow areas without burning out any more highlights. It also leaves the deeper shadow areas intact. It is a far better way of adjusting the exposure of a photograph than simply altering the Brightness/Contrast, however it isn't quite the best way. Adjusting the Levels mid-point is still strictly linear in its adjustment.

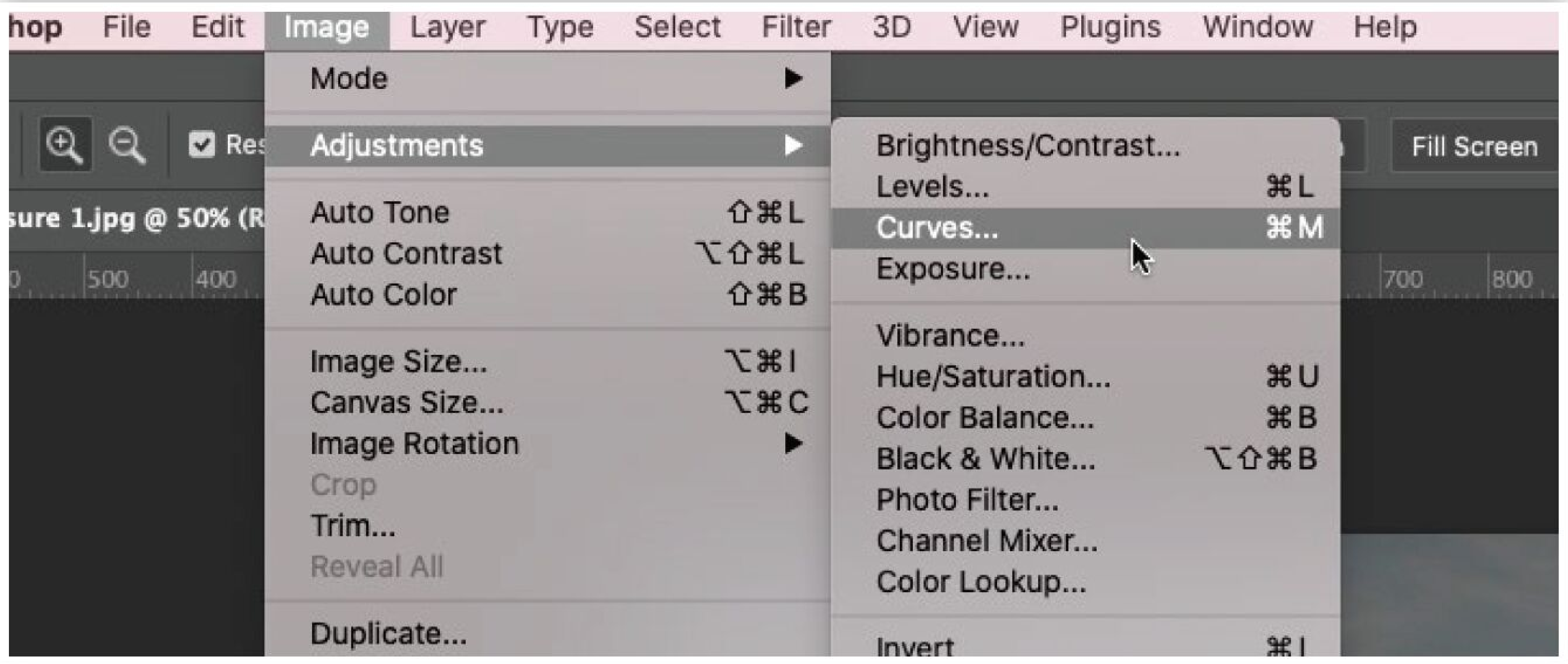
Curves

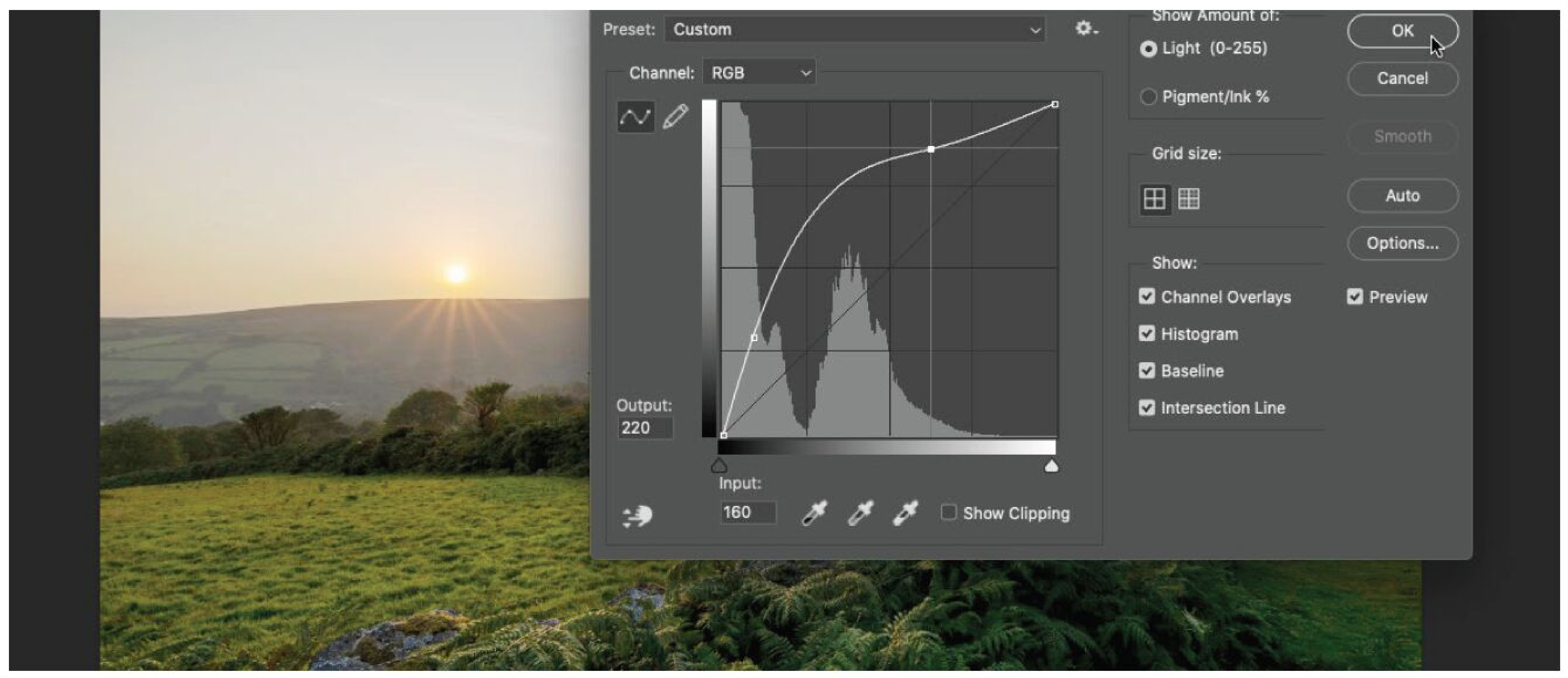
The Curves adjustment option, again found in the Image > Adjustment menu and as an adjustment layer option, is a method of changing the relative brightness of specific tones and ranges of tones within an image, giving precise control over exposure. Learning to use it properly is a core skill in image editing and will enable you to make precise and subtle changes to the brightness and relative contrast of not just of the image as a whole, but also of individual colour channels.

Drag the Curves output line around by clicking at any point, then moving the handle that appears. To improve this picture we need to brighten the shadows and mid-tones, while simultaneously darkening the highlights, so we should drag the lower side of the curve upwards and the upper part of the curve downwards, creating an inverted S-shaped curve. As with many Photoshop techniques, the key here is subtlety. Push the curve too far and you'll ruin the picture, so keep an eye on it as you progress.

USEFUL TIP

As with most Photoshop editing techniques, subtlety is the key. If you push the curves too far you'll lose detail.

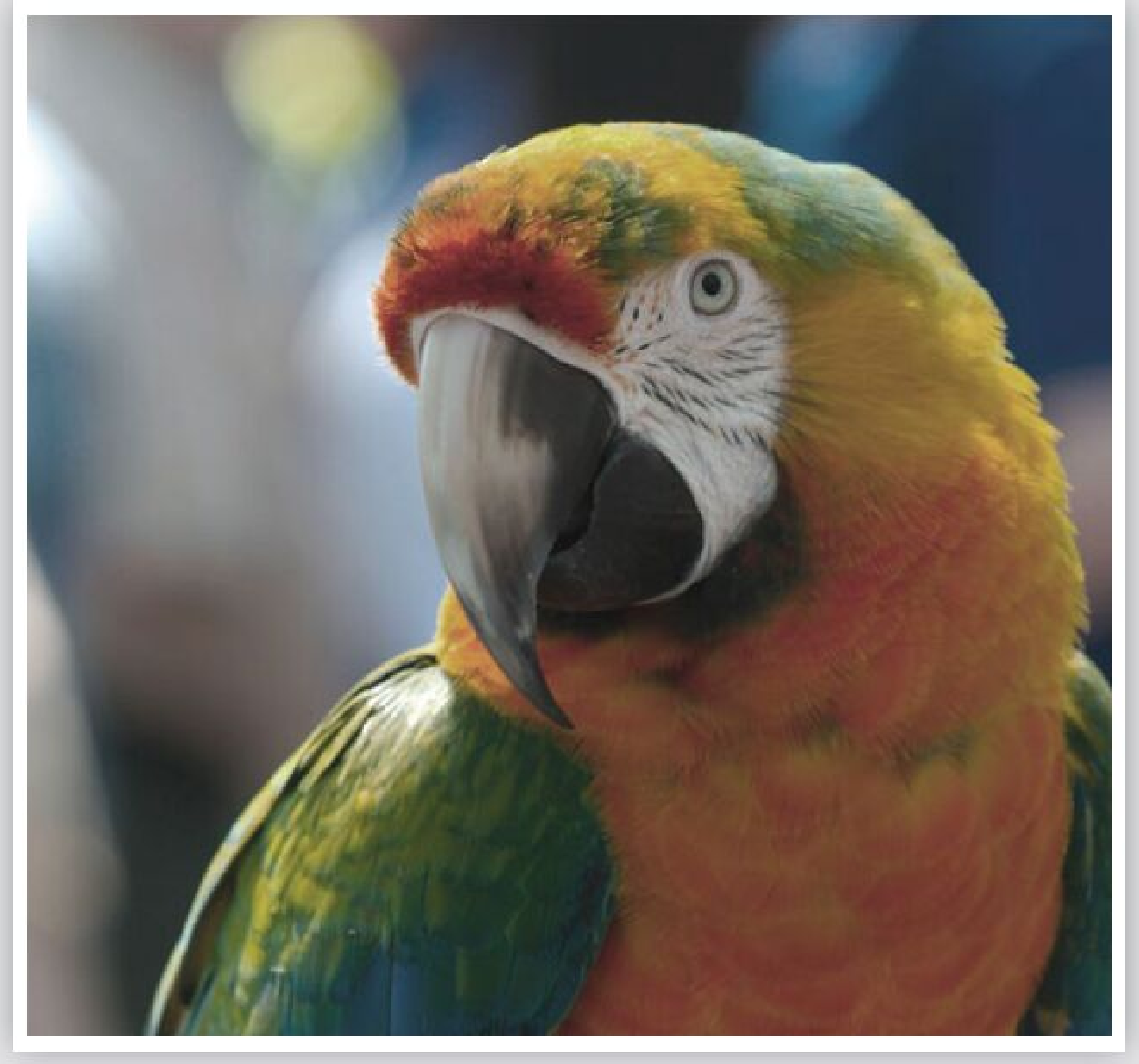

hop File Edit Image Layer Type Select Filter 3D View Plugins Window Help
Res
Fill Screen
sure 1.jpg @ 50% (R
500 400 700 800
Mode
Adjustments
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation
Crop
Trim...
Reveal All
Duplicate...
Brightness/Contrast...
Levels... ⌘L
Curves... ⌘M
Exposure...
Vibrance...
Hue/Saturation... ⌘U
Color Balance... ⌘B
Black & White... ⌥⇧⌘B
Photo Filter...
Channel Mixer...
Color Lookup...
Invert ⌘I


Preset: Custom
Channel: RGB
Output: 220
Input: 160
Show Amount of: ● Light (0-255) ○ Pigment/Ink %
Show: ☑ Channel Overlays ☑ Histogram ☑ Baseline ☑ Intersection Line
☑ Preview
☐ Show Clipping
OK
Cancel
Smooth
Grid size:
Auto
Options...

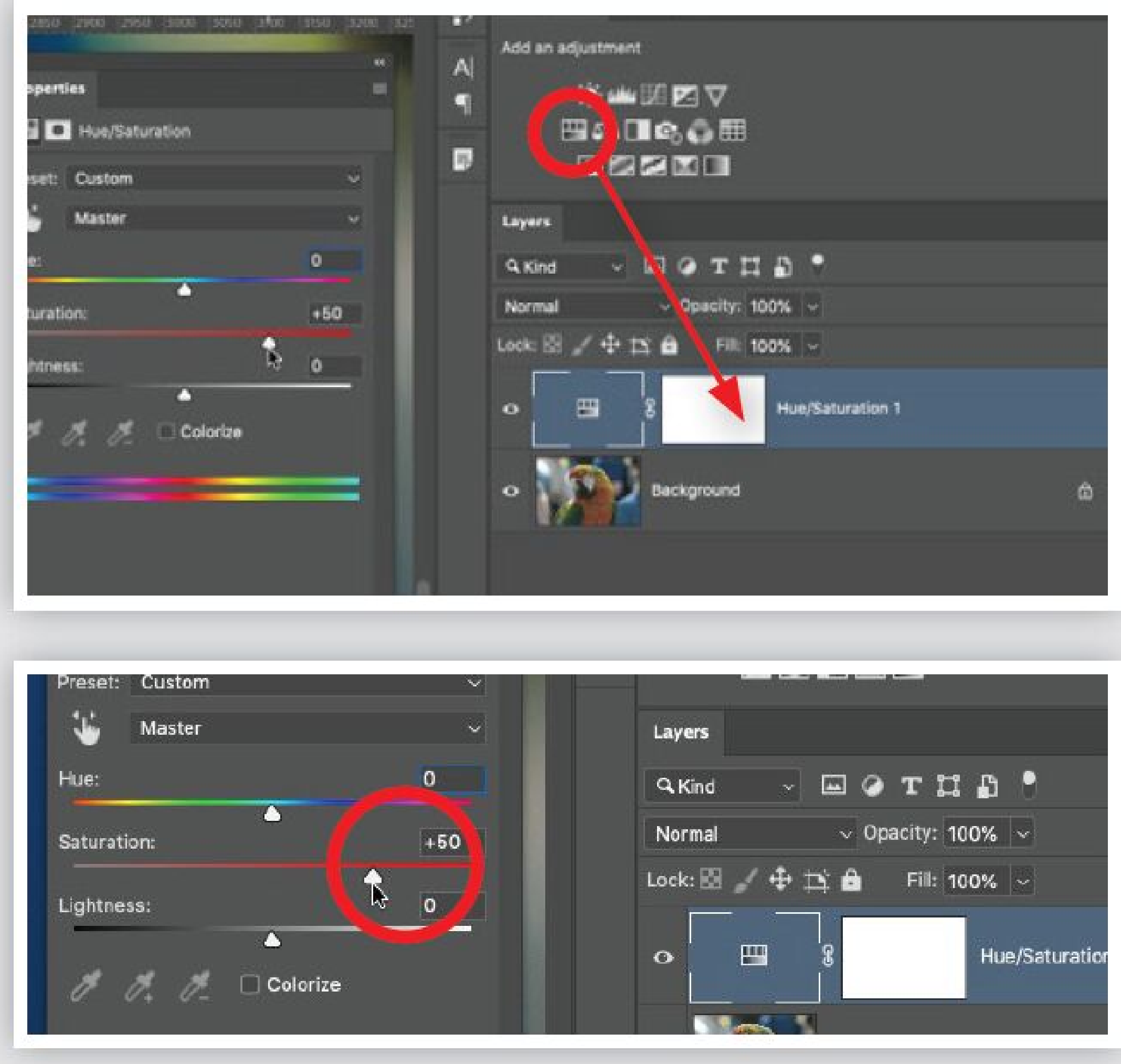
Contrast and Saturation

Using curves and blend modes to improve colour saturation and contrast in your digital photos

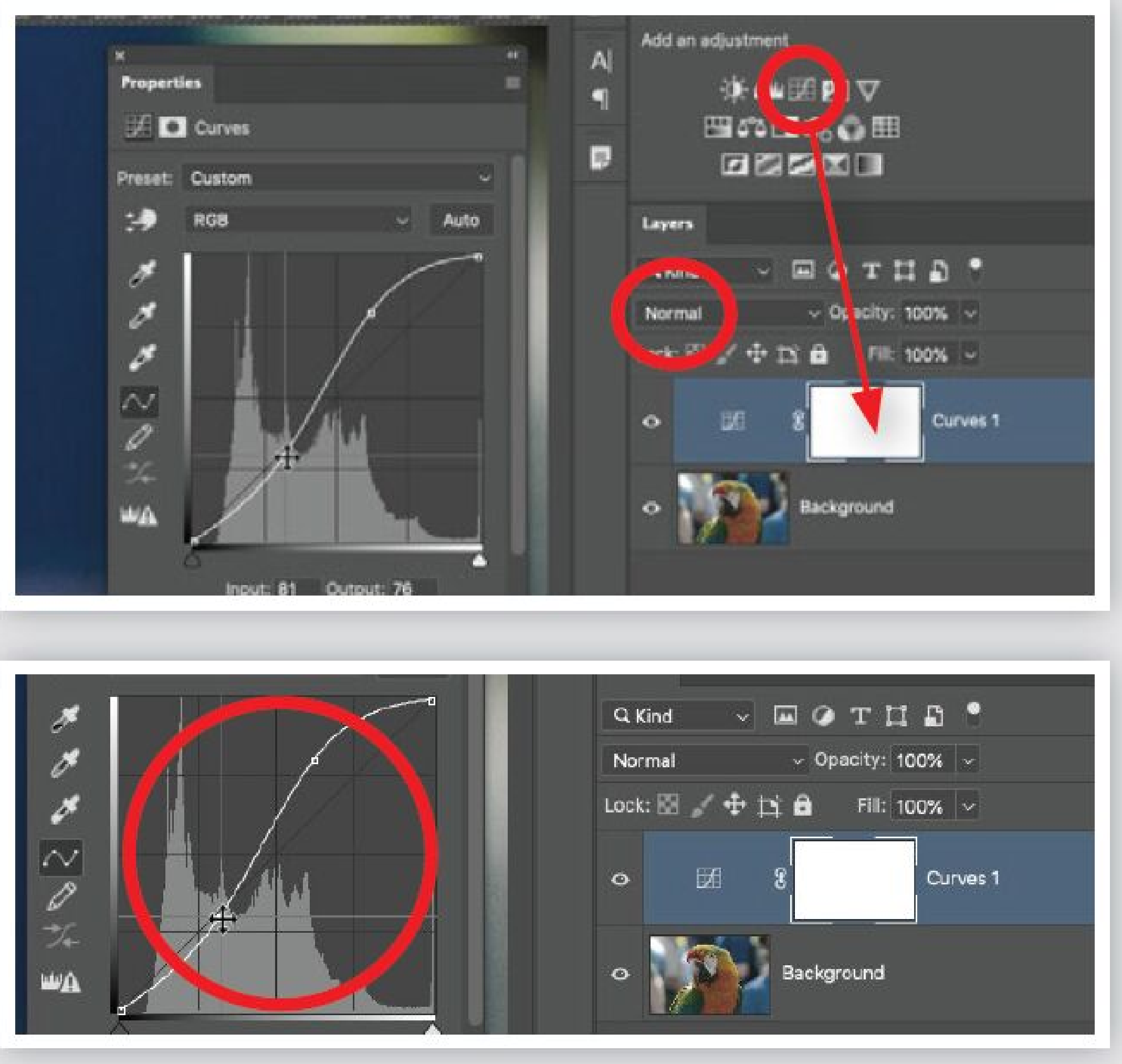
When you take a digital photo of a scene, you are relying on your camera to be able to capture all the colours and tones that you see. Unfortunately most digital cameras simply aren't capable of recording the full range of colours and shades that the human eye can see, so your photo of what was a bright and colourful scene may prove to be a bit of a disappointment when you see it on your monitor. Fortunately there are many different ways to improve both contrast and colour saturation, which might help to restore some of the sparkle to your photos. Let's take a look at some of the alternatives.



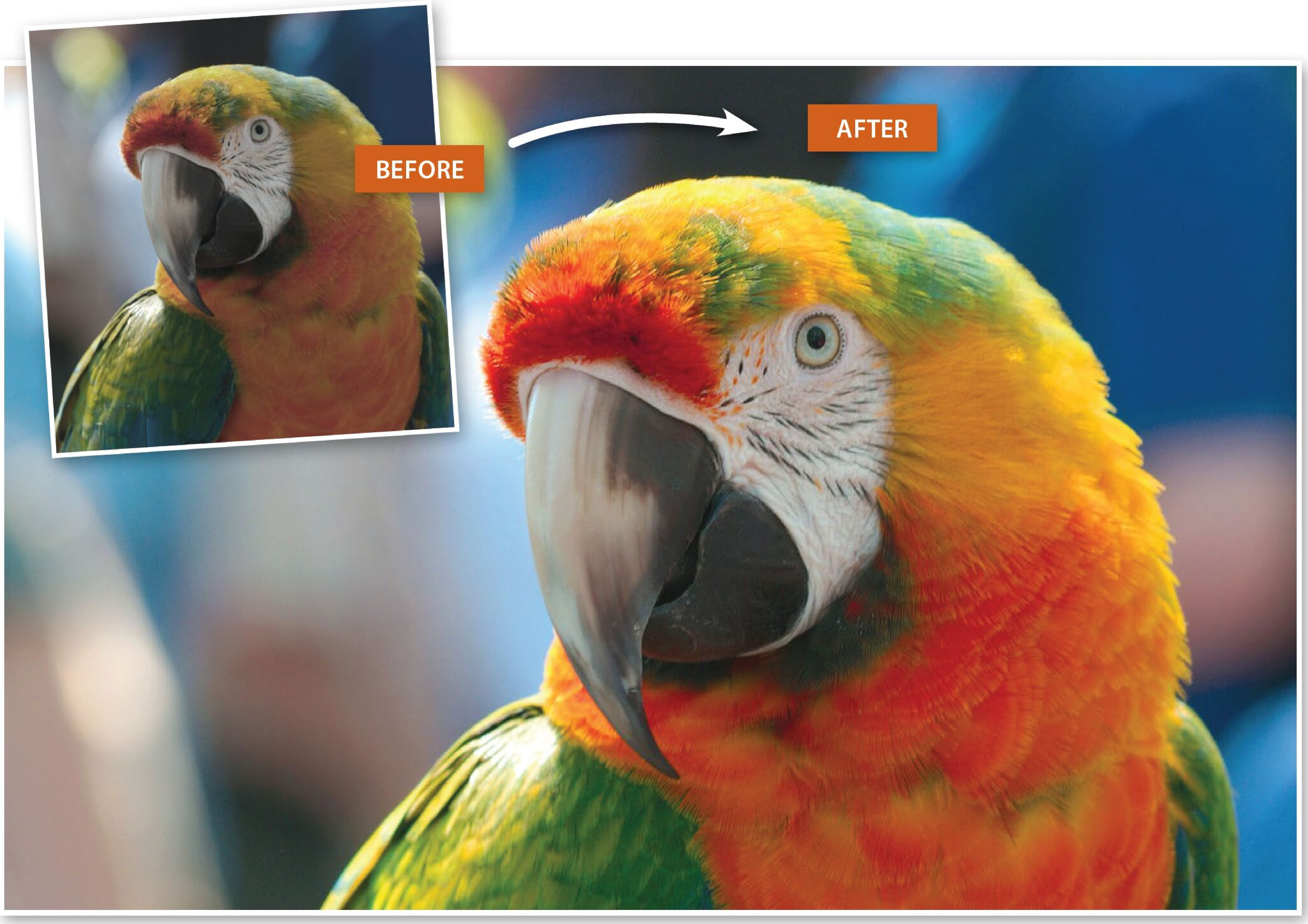
01 As an example we'll use this snapshot of a parrot. In reality the colour of the scene is much more intense than it looks here, but the digital camera that was used to take the photo was set to a neutral and flat colour mode to capture as much dynamic range as possible. This mode generally leaves images looking a bit pale and lacking contrast and vibrant colour. This shouldn't be a problem as the shot is well exposed and contains plenty of detail that will suit the increase in saturation.

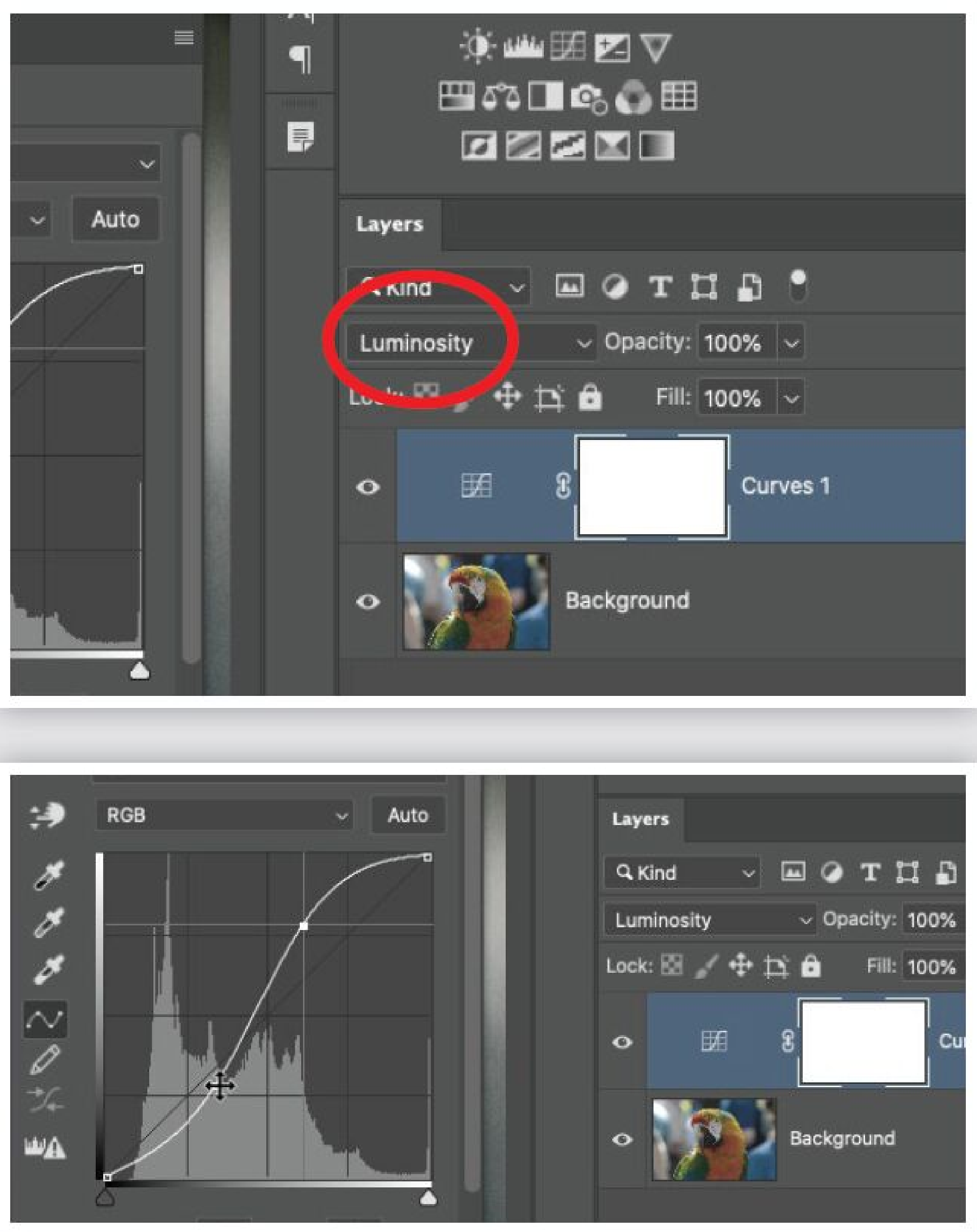

Add an adjustment
Hue/Saturation
Master
Saturation:
+50
Lightness:
Colorize
Layers
Normal
Opacity: 100%
Fill: 100%
Hue/Saturation 1
Background

02 The simplest way to improve the saturation is by adding a Hue/Saturation adjustment layer. Like many other parts of the program, Hue/Saturation has been improved in Photoshop, producing a smoother result than previous versions. If you were to boost the saturation by about +50, you'd restore some of the missing colour, but it's a scattergun approach and doesn't offer much fine control. It can also increase noise in shadow areas in JPEG images. Let's look at more options.

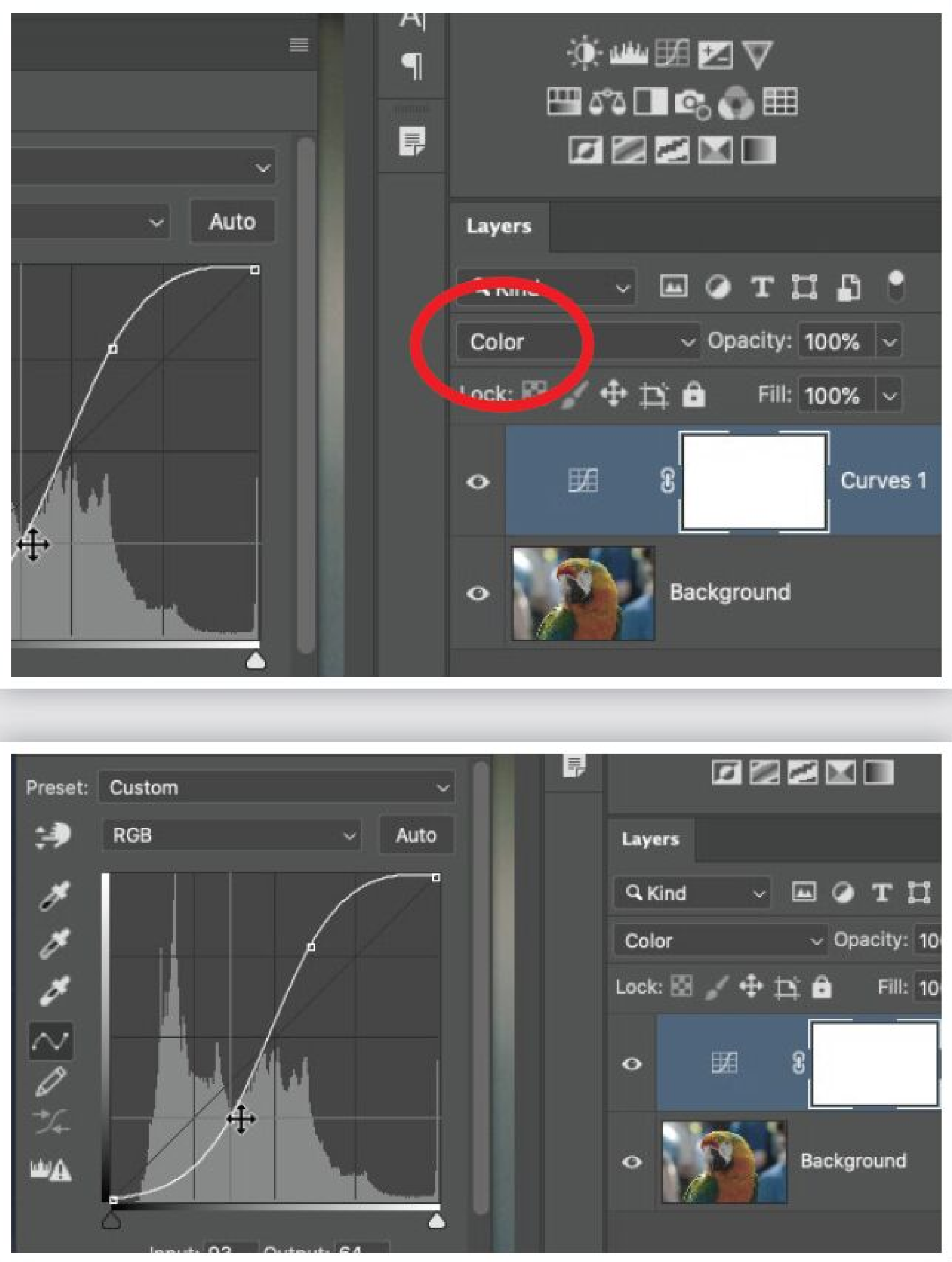

Add an adjustment
Properties
Curves
Preset: Custom
RGB
Auto
Layers
Normal
Opacity: 100%
Fill: 100%
Curves 1
Background

03 A much more controllable way to adjust both saturation and contrast is to use a Curves adjustment layer. We've already looked at Curves in the section on adjusting exposure, but by using Blend Modes we can also use Curves to enhance saturation. In Normal blend mode the curve will change both contrast and saturation. We're using the same S-shaped curve, which boosts brightness at the upper end of the scale and darkens shadows at the lower end.

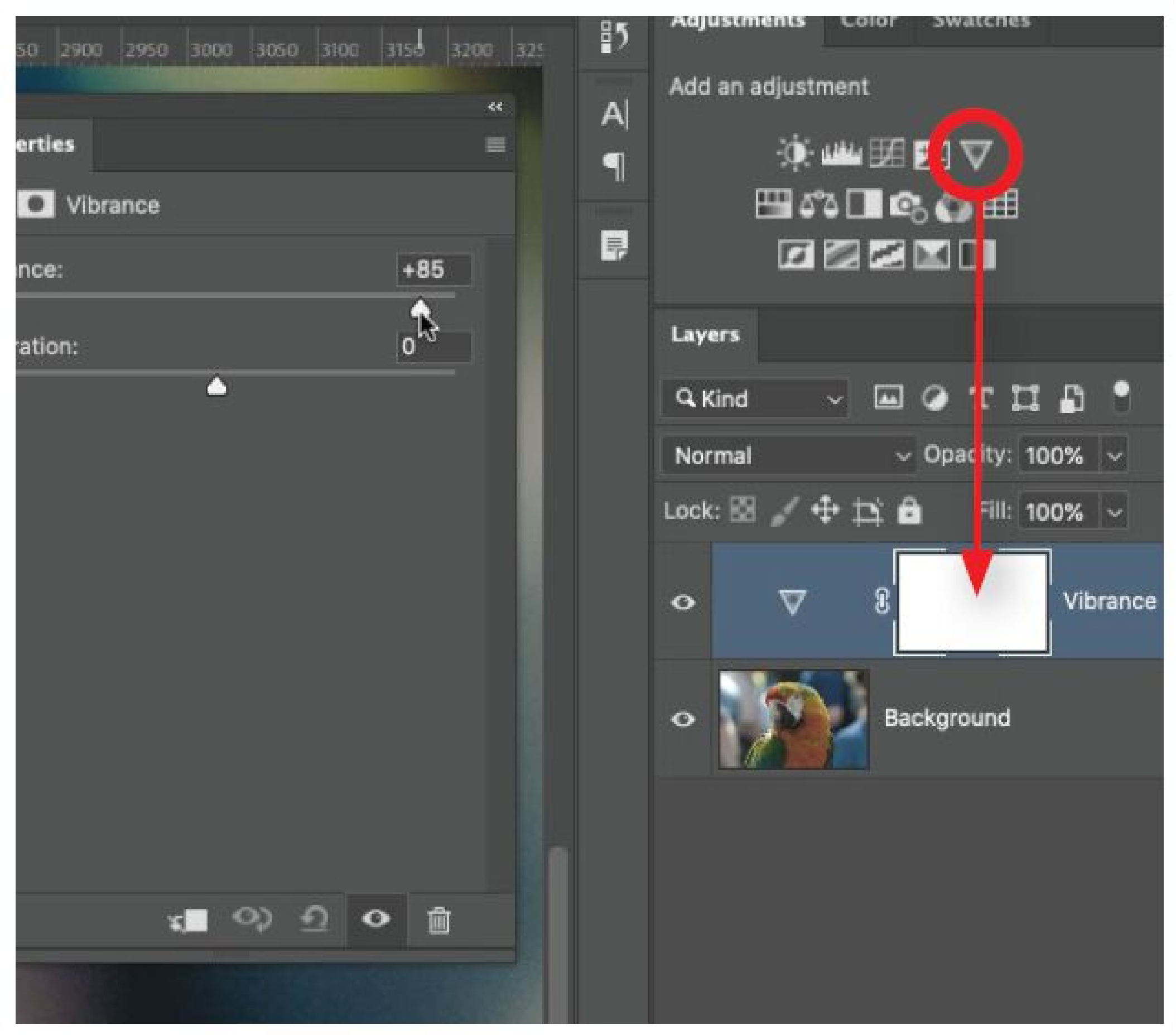

BEFORE
AFTER


Layers
Kind
Luminosity
Opacity: 100%
Fill: 100%
Curves 1
Background
Auto
RGB

04 By changing the blend mode to Luminosity, the curve will only affect brightness, so an S-shaped enhancement curve will improve contrast, lightening highlights and darkening shadows without affecting colour saturation.


Layers
Kind
Color
Opacity: 100%
Fill: 100%
Curves 1
Background
Auto
Preset: Custom
RGB

05 Conversely, by using a Color blend mode, an S-shaped curve will alter colour saturation without affecting brightness, so shadows and highlights are unaffected. This is great to keep noise under control.


Add an adjustment
Vibrance
+85
0
Layers
Kind
Normal
Opacity: 100%
Fill: 100%
Vibrance
Background

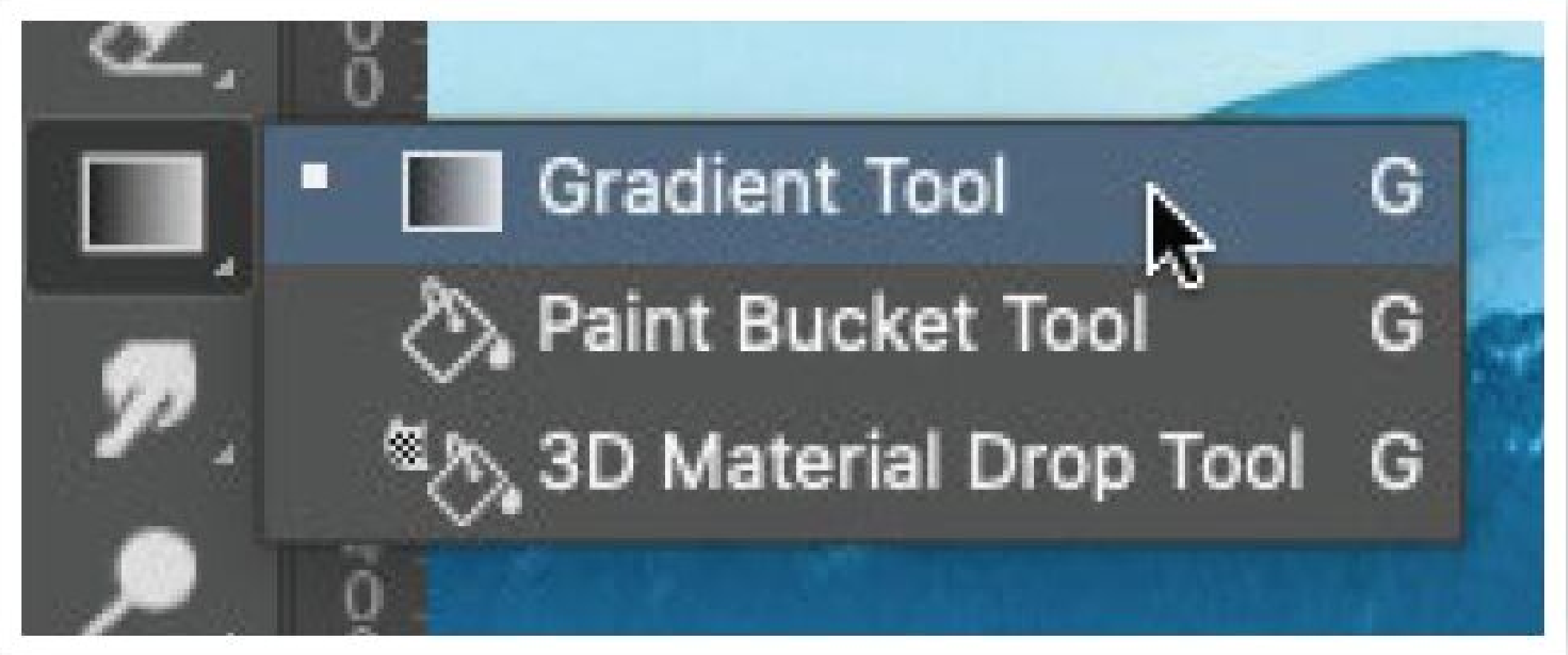
06 Another way to improve saturation is a Photoshop function called Vibrance, which can also be applied as an adjustment layer. Vibrance is a difficult thing to quantify. It is a saturation function, but it works on a graph, affecting the least saturated areas most, and the most saturated areas least. On a picture like this it can help, but it has to be used with contrast enhancement for best effect, which may again cause an increase in noise. This option is less intense than using Saturation. Vibrance is best used when processing a Raw image file.

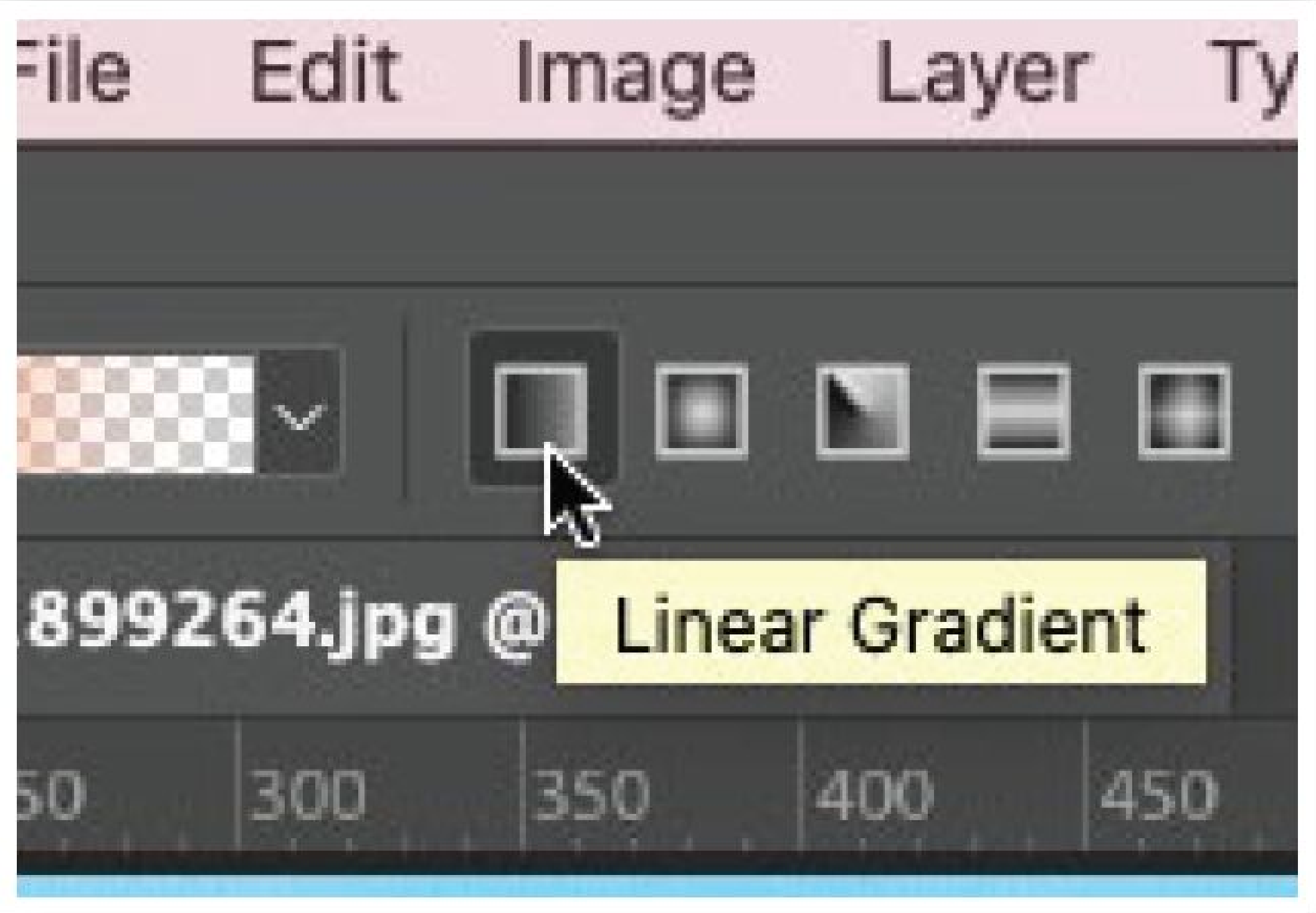
Gradient Fill & Paint Bucket

Fill layers and selections with colours, textures and gradients

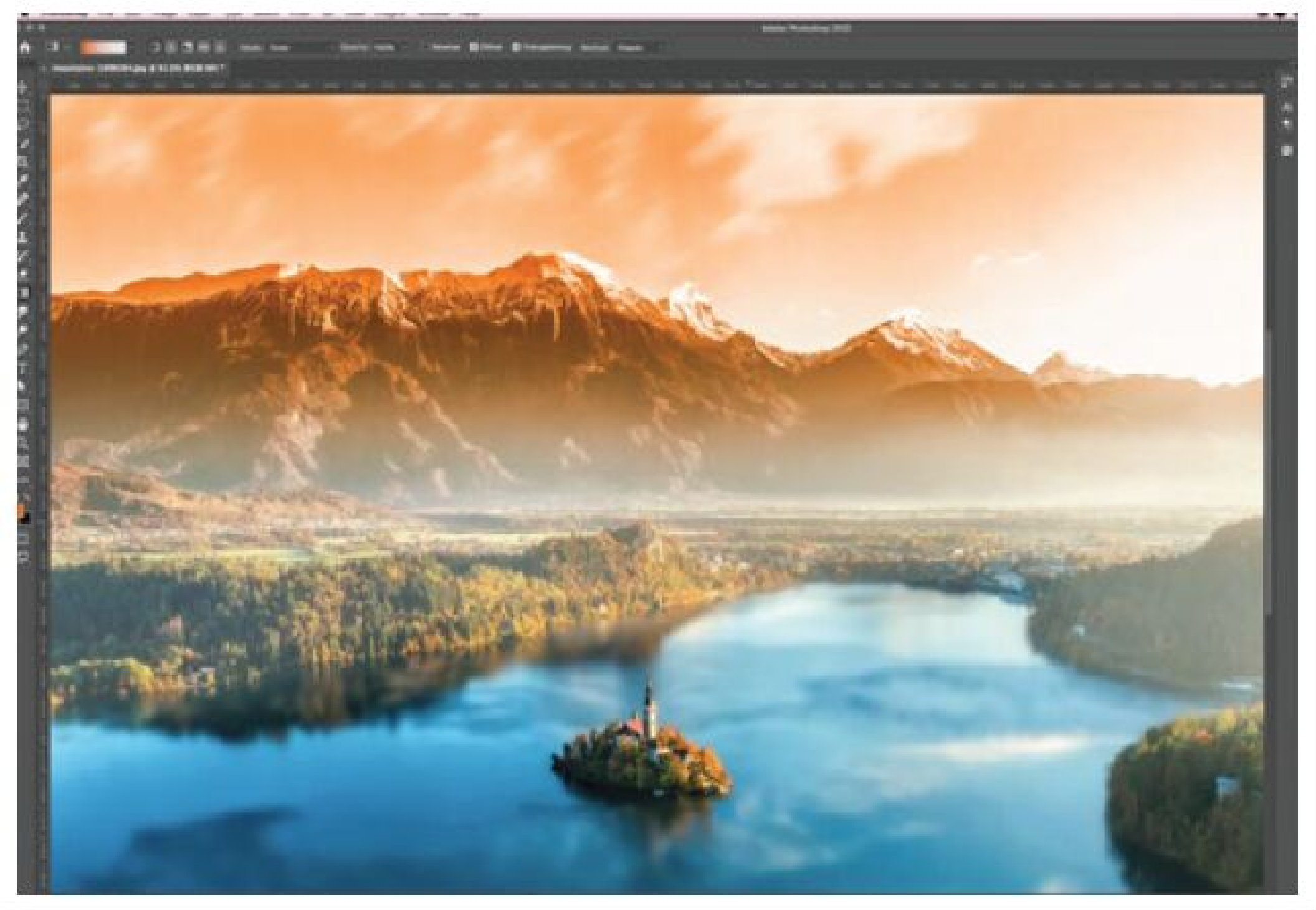
One very useful facility that Photoshop provides is the Gradient tool. It can fill an area of a layer with a gradual blend between multiple colours. You can choose from a selection of pre-set gradient fills or create your own. It's a great way to add gradient filters for enhancing photographs, or to create effects such as vignettes and centre-spot soft-focus. Let's take a closer look at how it works.

You'll find the Gradient tool about halfway down the Tool Palette. It has its own unique set of options in the Tool Options bar, the main one being the Gradient Picker, which lets you choose from a list of pre-set gradients.




File
Edit
Image
Layer
Ty
899264.jpg @
Linear Gradient
50
300
350
400
450

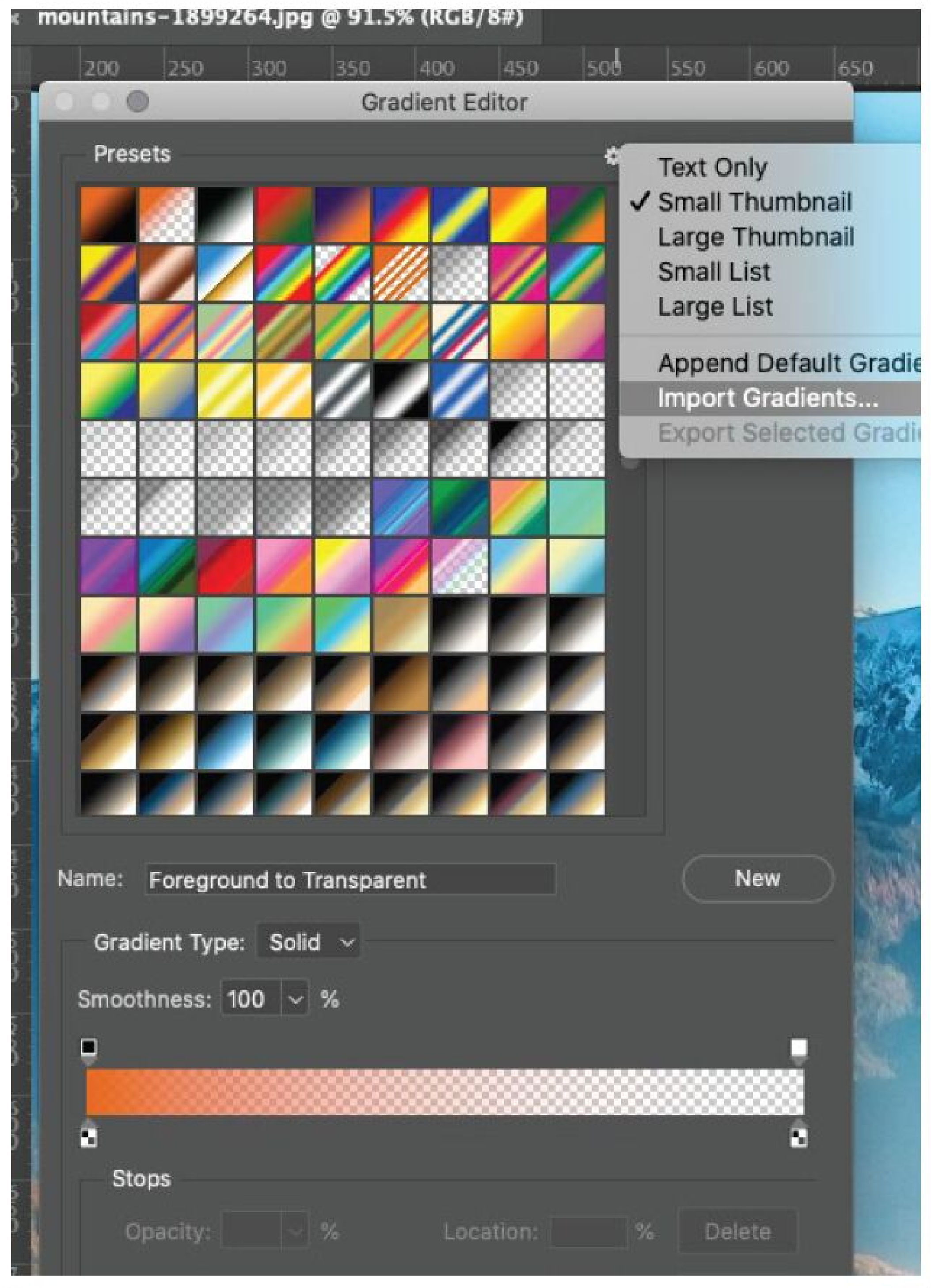
Next to this is a row of buttons that create different gradient shapes. The default setting is a straight Linear Gradient, but other options include Radial, Angle, Reflected and Diamond shapes.



Like the Brush tools the Gradient has blend modes that let you mix the gradient colour fill with the layer below it in various ways. This is a great way to enhance landscape shots, by using an orange-to-transparent gradient fill in Color mode, as in the example seen here.

Photoshop comes with a selection of default pre-set gradients loaded, but there are other packs of gradients available. You can load in these other packs via the Gradient menu. If you open the Gradient Picker you'll see a small icon like a cog wheel. If you click on this you'll see the menu, with the list of standard gradient packs available to load at the bottom.

Other Gradient tool options include the overall layer opacity, reversing the direction of the gradient colour mix, changing the "dither" of the colour mixing and toggling the transparency.

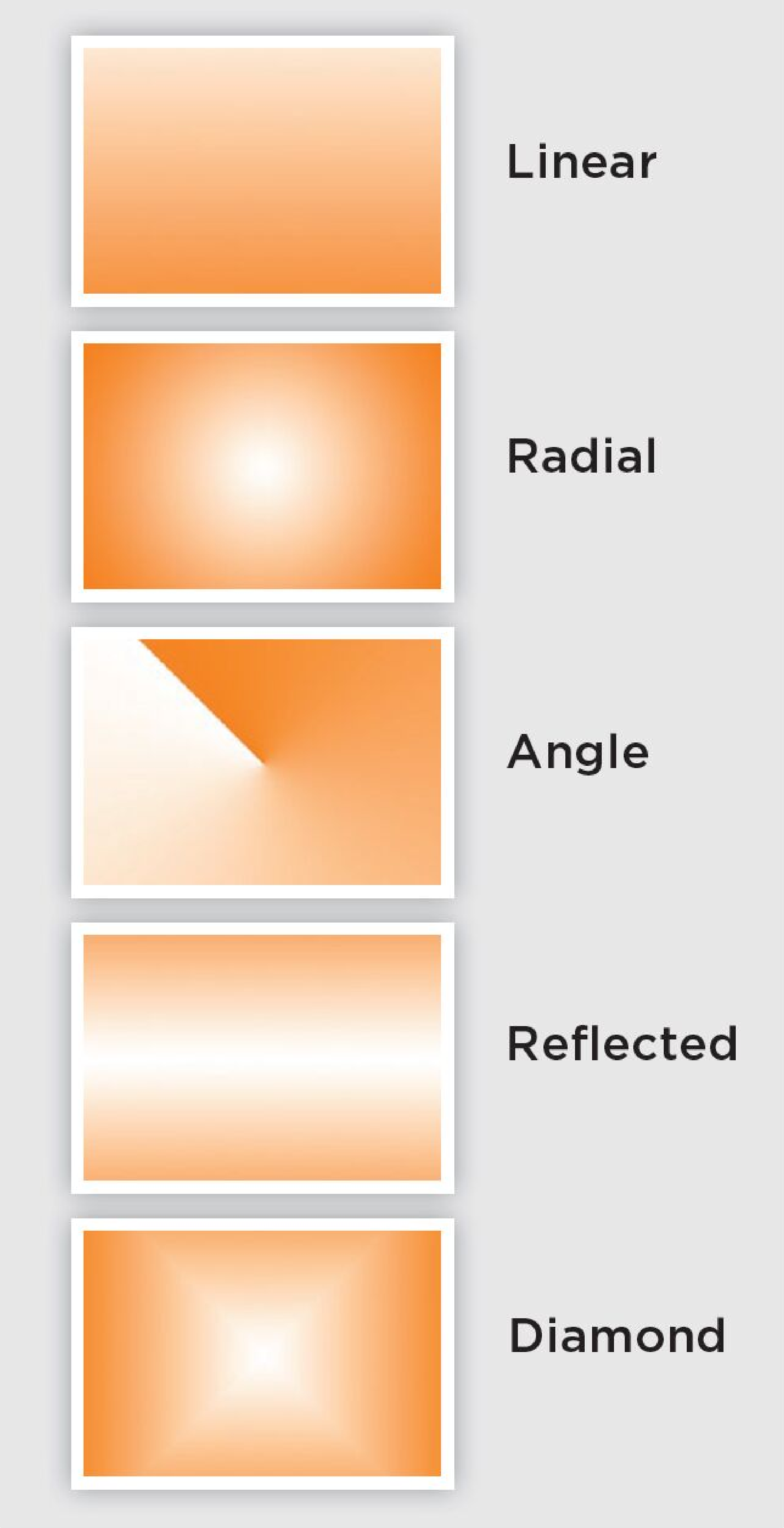

mountains-1899264.jpg @ 91.5% (RGB/8#)
200
250
300
350
400
450
500
550
600
650
Gradient Editor
Presets
Text Only
✓ Small Thumbnail
Large Thumbnail
Small List
Large List
Append Default Gradie
Import Gradients...
Export Selected Gradi
New
Stops
Opacity: %
Location: %
Delete

Name: Foreground to Transparent

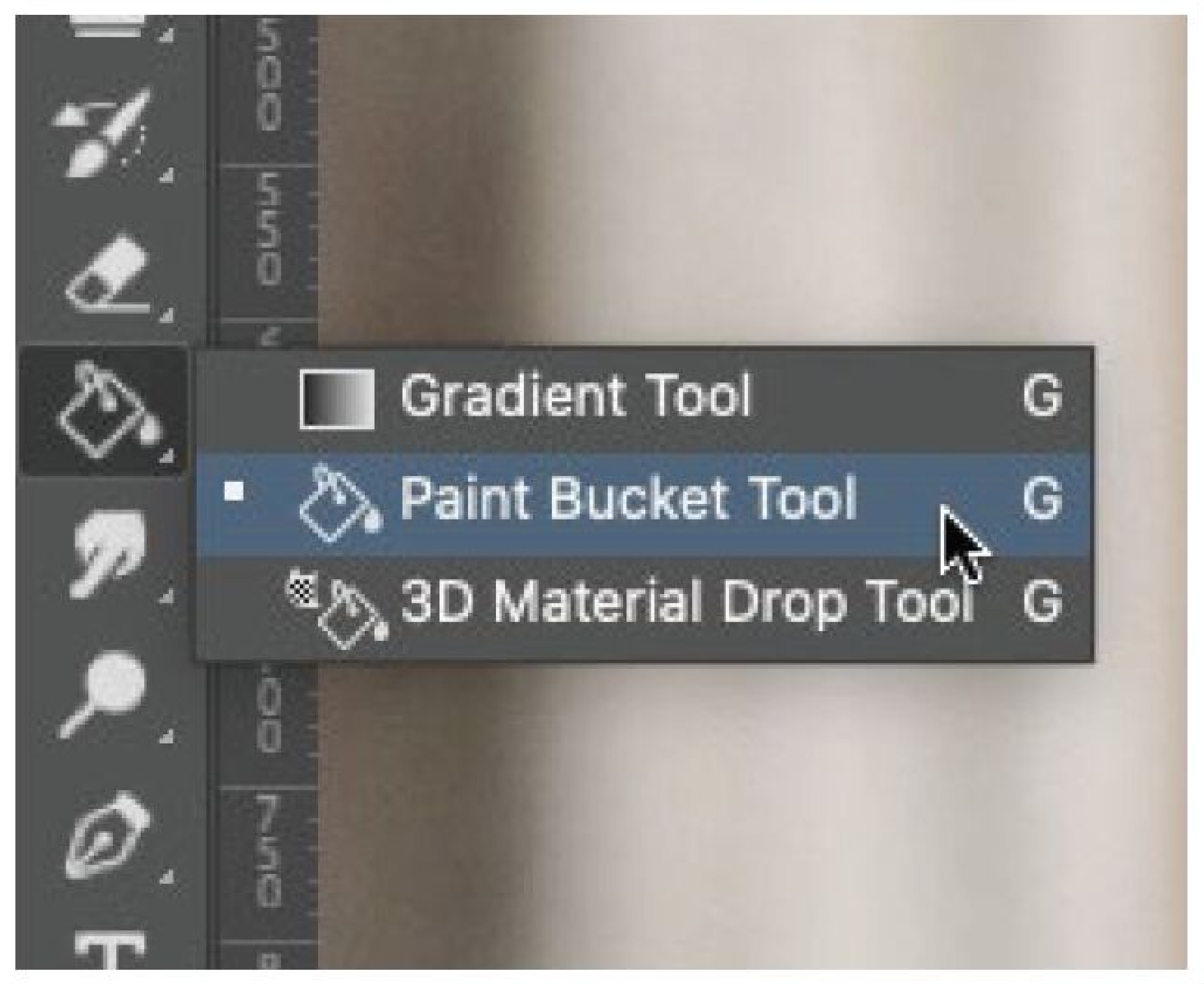
Gradient Type: Solid

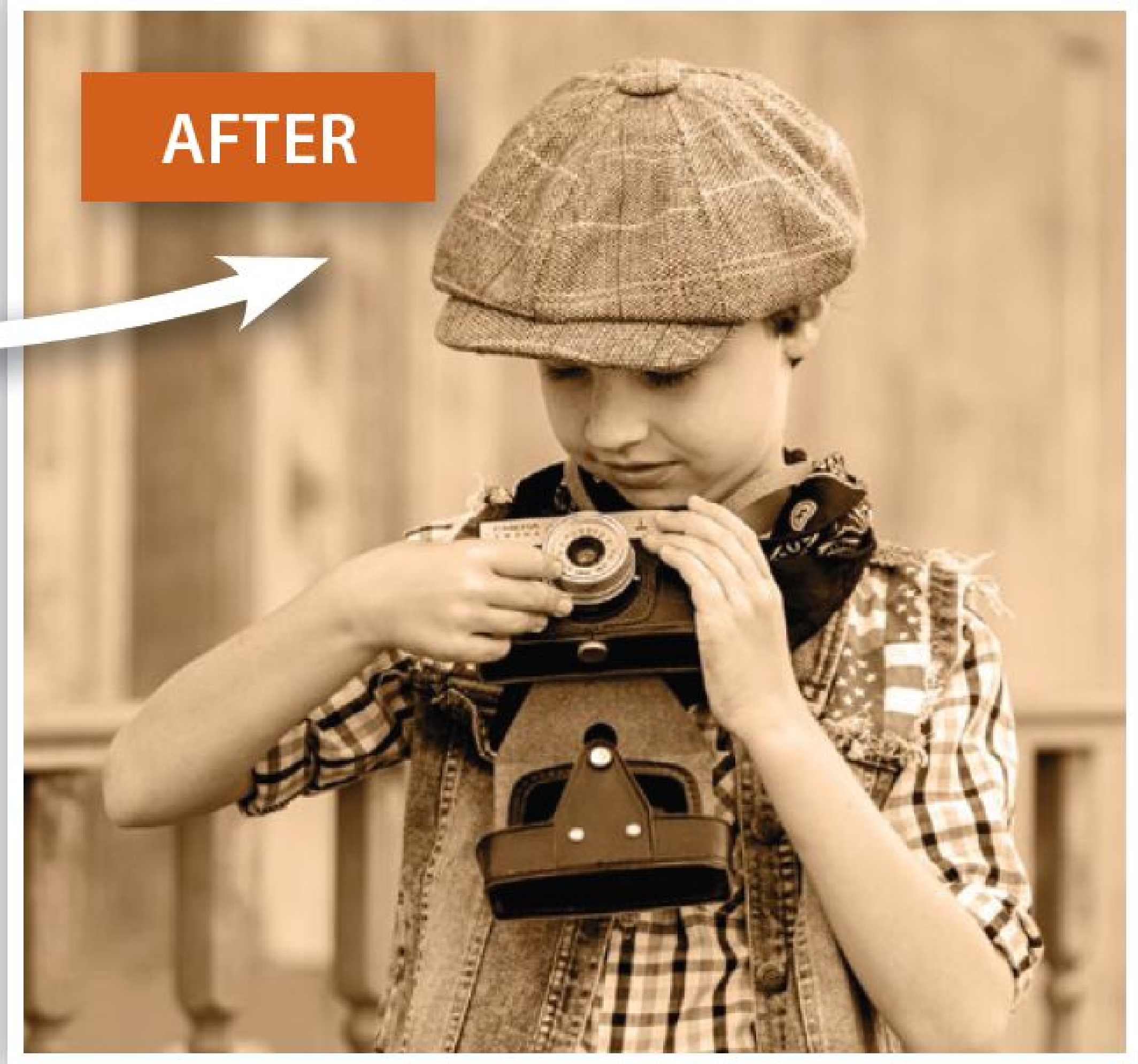
Smoothness: 100 %

Below are the main gradient types that you can choose from the tool options bar at the top left of your screen.


Linear
Radial
Angle
Reflected
Diamond

Paint Bucket Tool


Gradient Tool G
Paint Bucket Tool G
3D Material Drop Tool G



If you click and hold on the Gradient tool you'll find that one of its options is the Paint Bucket tool, which is used to fill an area, a layer, or a selection with a solid colour. In combination with layer transparency and blend modes it's a great way to add a colour tint or filter to a whole image.

If you use the Paint Bucket on the background layer of your image it will fill in an area of contiguous colour in much the same way as the Magic Wand tool. To add a tint to a whole image, create a new layer then fill it with the colour. It will fill the whole layer and you can then use layer transparency and blend modes to achieve the effect you're looking for.

To get this vintage photo effect, we used a sand brown colour, at 100% opacity and a Colour blend mode, which combines the fill colour with the tones and colours of the background image.

USEFUL TIP

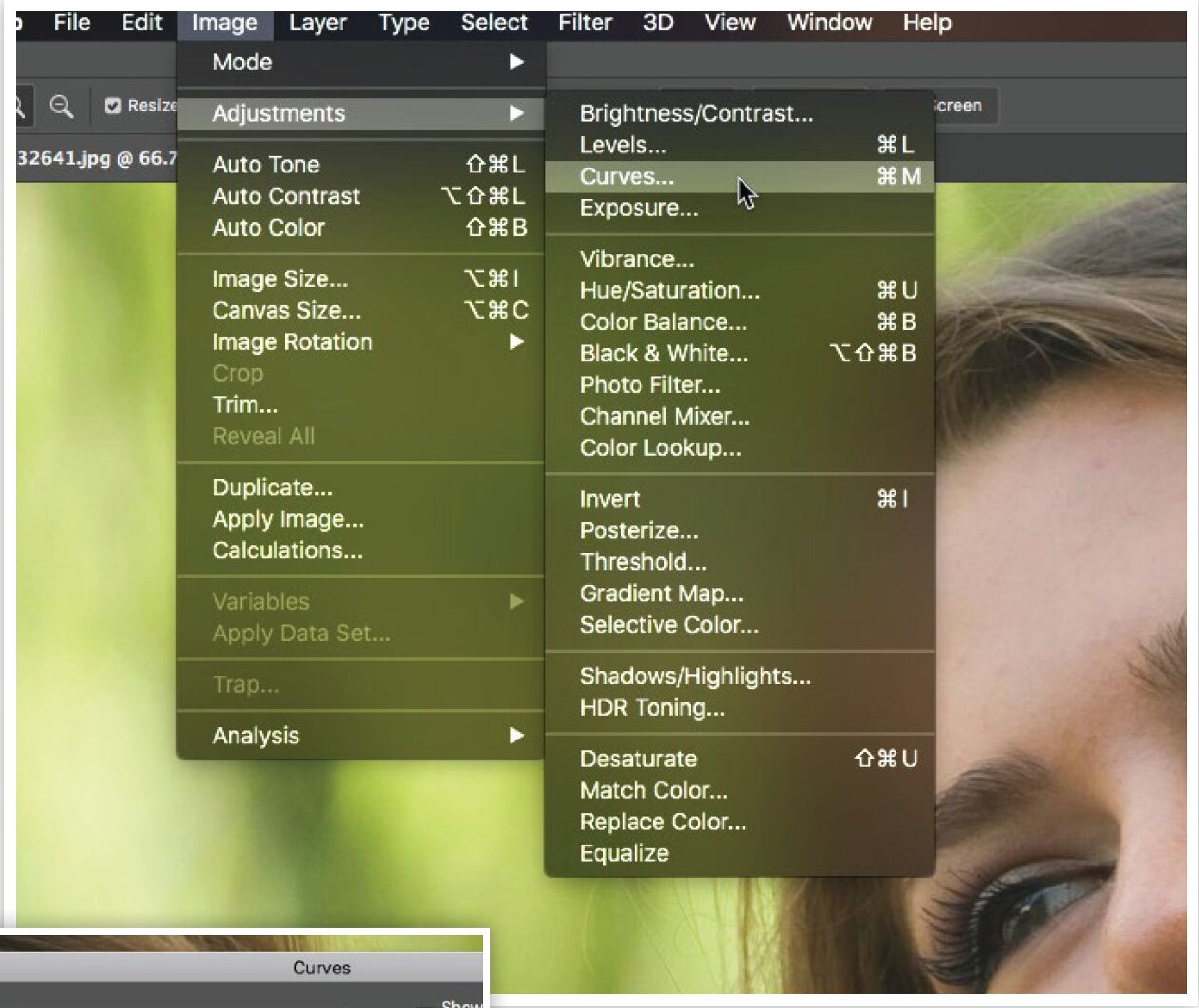
Remember that the Paint Bucket uses the same edge detection as the Magic Wand tool. If you want to fill the whole screen, use a new layer.

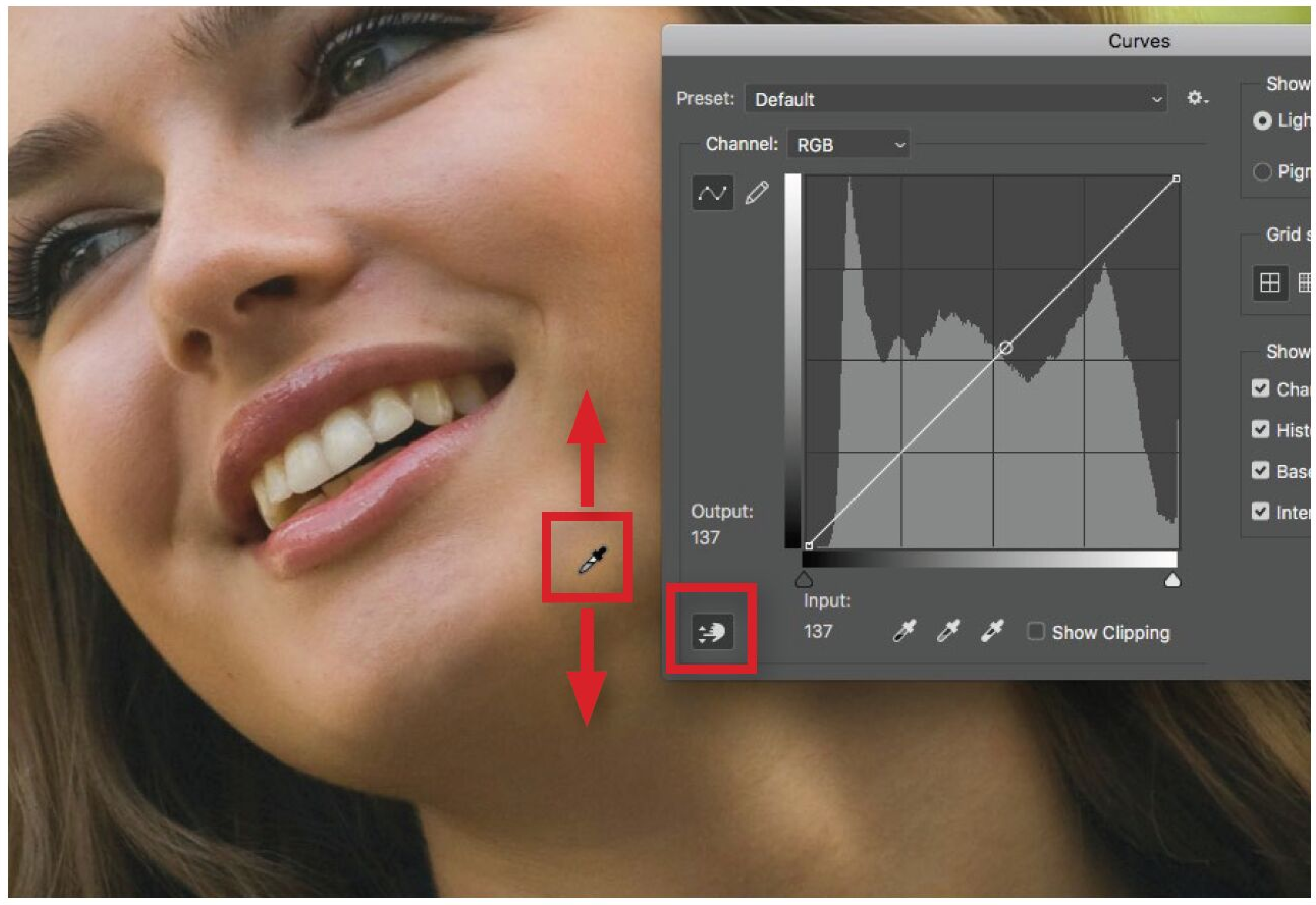
Curves and Levels

The most versatile way to adjust brightness and contrast in your digital images

You'll find the Curves function in the Image > Adjustments menu, or use the keyboard shortcut Cmd+M. The Curves dialog looks a bit daunting at first; a graph with a diagonal line running up the middle of it, like a difficult piece of maths homework. It's nothing to be scared of though and is in fact the most useful and versatile tool for making adjustments to the exposure and tonal balance of your images. We'll use this female portrait as the image to begin with. What we want to do first is crop it down so we just have the main part of her face and hair with some trees beyond.

The Curves graph is a histogram showing the relative strengths of different tones within the image. It shows the input distribution along the bottom of the graph and the output up the vertical axis. The straight diagonal line from corner to corner indicates that there is a 1:1 ratio between input and output at all tones; the output is exactly the same as the input, as you'd expect. It is by adjusting the line and altering the ratio of input tones to output tones, that we can achieve a number of effects. The left-hand end of the horizontal axis represents the darker tones, while the right-hand end represents the highlights.


File
Edit
Image
Layer
Type
Select
Filter
3D
View
Window
Help
Resize
32641.jpg @ 66.7
Mode ▶
Adjustments ▶
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation ▶
Crop
Trim...
Reveal All
Duplicate...
Apply Image...
Calculations...
Variables ▶
Apply Data Set...
Trap...
Analysis ▶
Brightness/Contrast...
Levels... ⌘L
Curves... ⌘M
Exposure...
Vibrance...
Hue/Saturation... ⌘U
Color Balance... ⌘B
Black & White... ⌥⇧⌘B
Photo Filter...
Channel Mixer...
Color Lookup...
Invert ⌘I
Posterize...
Threshold...
Gradient Map...
Selective Color...
Shadows/Highlights...
HDR Toning...
Desaturate ⇧⌘U
Match Color...
Replace Color...
Equalize
creen

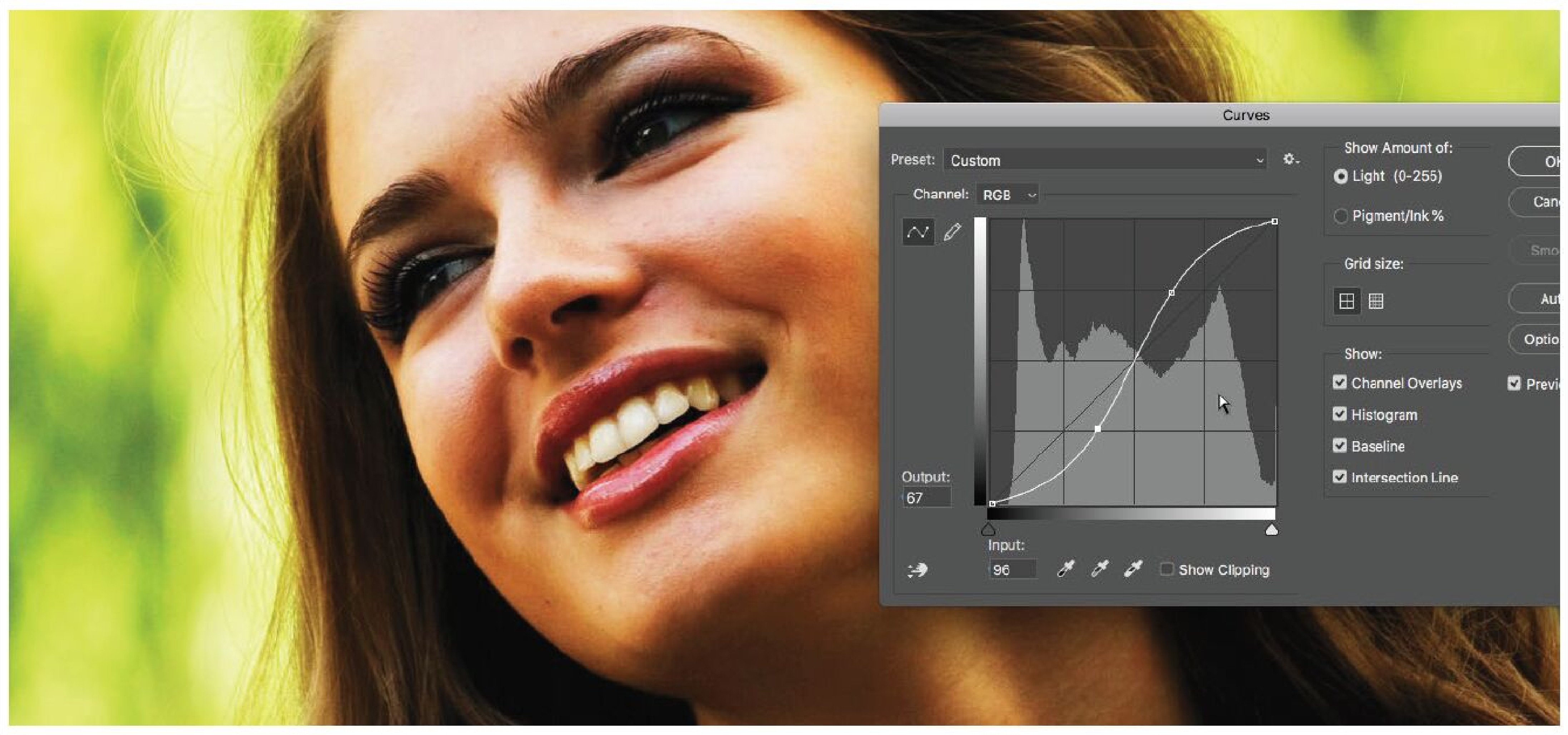

Curves
Preset: Default
Channel: RGB
Output:
137
Input:
137
Show Clipping
Show
Ligh
Pigm
Grid s
Show
Cha
Hist
Bas
Inte

The Curves graph can be manipulated in several ways. You can move the line directly, by clicking on it to place new anchor points and then dragging these points into new positions. You can also use the arrow keys to nudge a selected point up, down, left or right. There's no limit to where the line can start or finish, or where it goes in between, which can lead to some extraordinary results.

In later versions of Photoshop there's an even more useful way to use Curves. Just to the lower left of the histogram you'll see a button with a hand and two arrows on it. If you click this button and then move the cursor over the image you'll notice a point on the line move up and down as the cursor passes over lighter and darker areas. Pick a spot that you want to lighten, click on it and drag upward and you'll see the tone curve move to match. Using this awesome feature you can selectively lighten or darken pretty much every tone in the image.

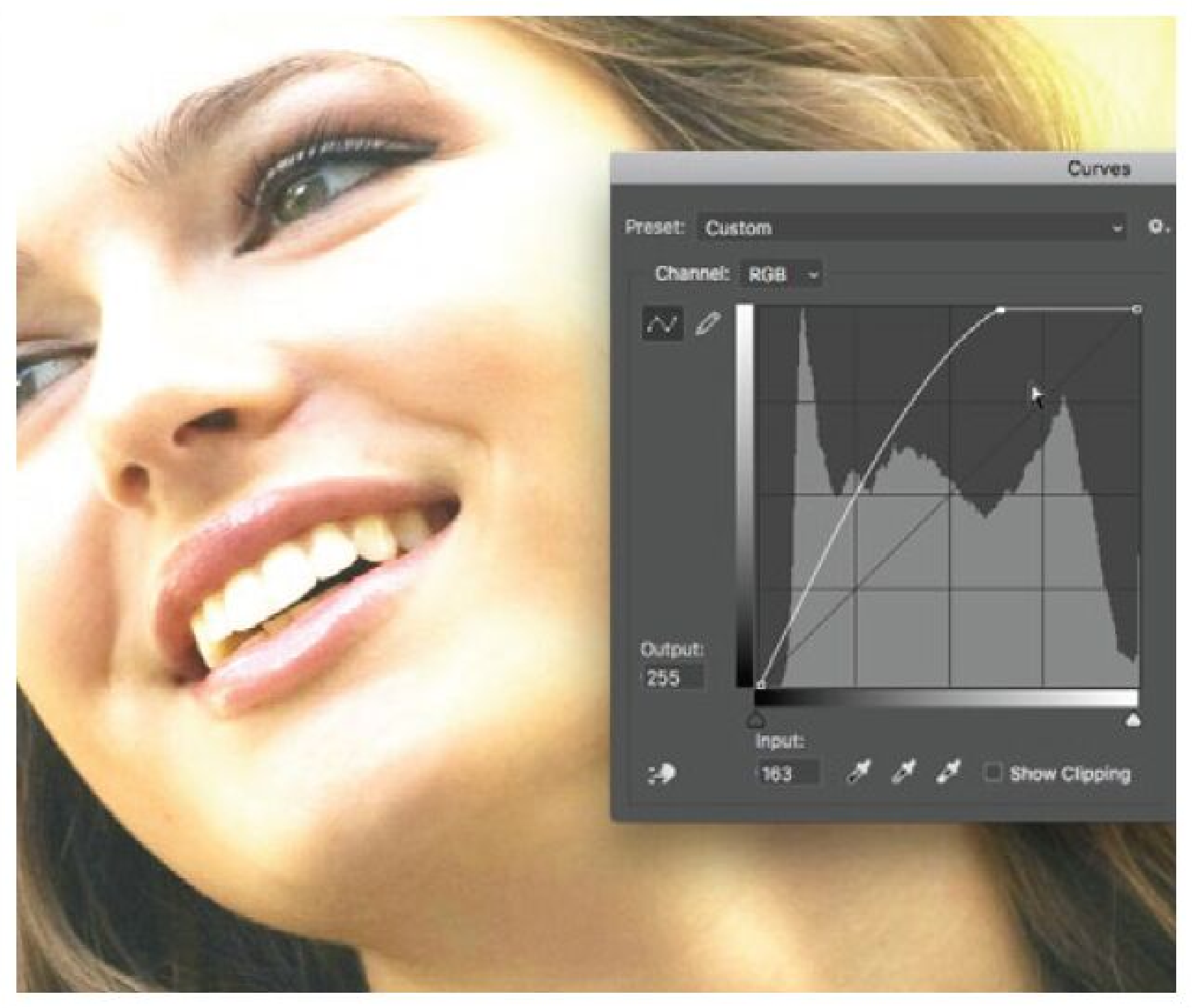
Boosting Contrast

Add two anchor points to the tone curve roughly one-third of the way from either end. Drag the shape of the line into a narrow S-shaped curve, slightly raising the upper half of the curve and lowering the lower half of it, leaving the mid-point and both ends in the same positions. This will brighten the lighter areas of the image, while darkening the darker areas, increasing the contrast while maintaining the same overall exposure. It's an excellent way to make very precise adjustments to contrast. Mid-tone lightness can be adjusted by moving the mid-point on the curve up or down.


Curves
Show Amount of:
● Light (0-255)
○ Pigment/Ink %
Grid size:
Show:
☑ Channel Overlays
☑ Histogram
☑ Baseline
☑ Intersection Line
☐ Show Clipping
☑ Previ

Preset: Custom
Channel: RGB
Output: 67
Input: 96

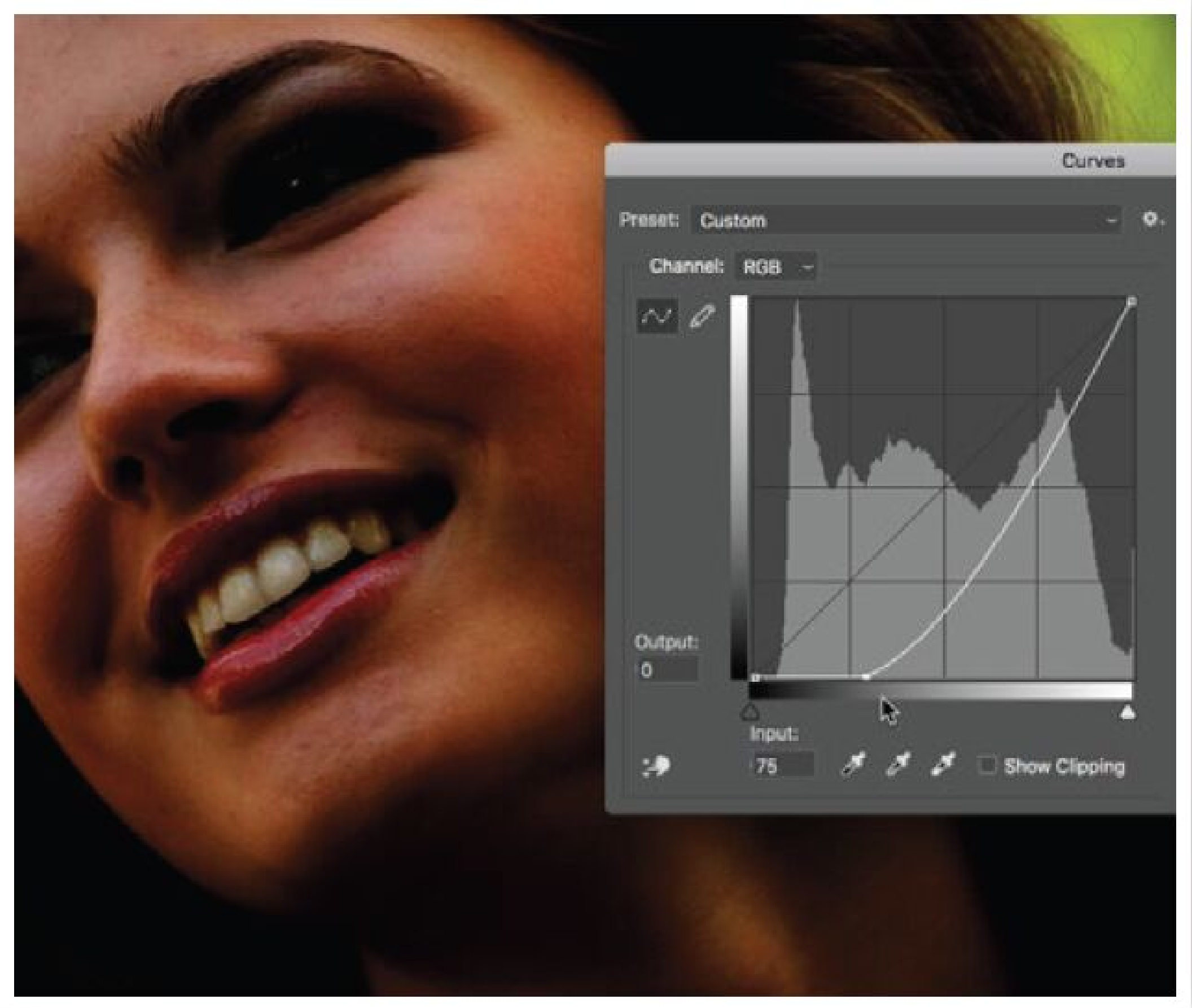
Emphasising Highlights


Curves
☐ Show Clipping

Preset: Custom
Channel: RGB
Output: 255
Input: 163

To boost the highlights of an image move the highest point leftwards along the top horizontal axis. This increases the brightness of the lighter pixels and may cause the brighter highlights to be burned out, but the result can be quite pleasing for the right kind of image. This technique works well in monochrome, producing an ethereal high-key image.

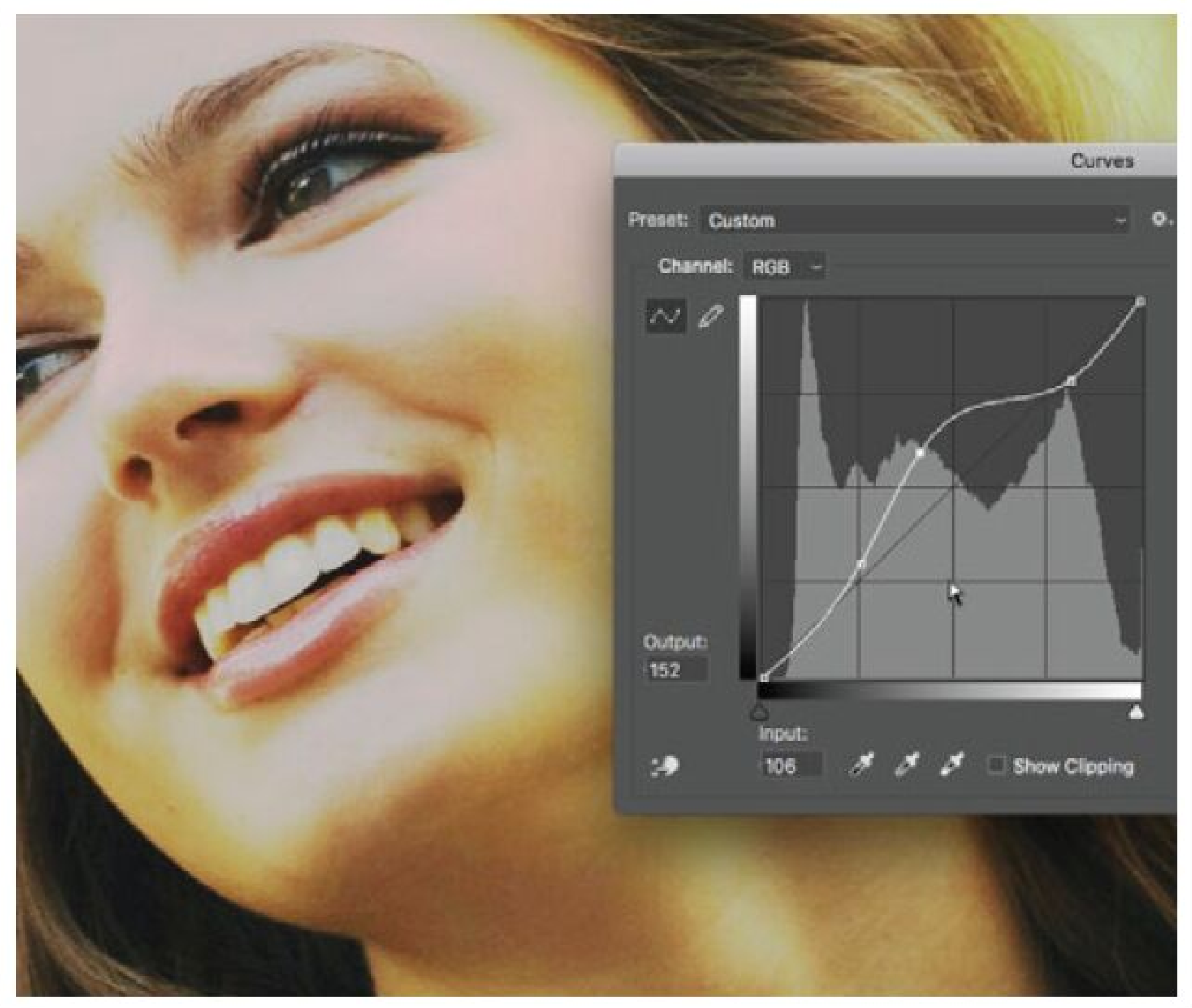
Emphasising Shadows


Curves
☐ Show Clipping

Preset: Custom
Channel: RGB
Output: 0
Input: 75

Moving the lowest point on the curve to the right will darken the shadows, but this will lose both shadow and mid-tone detail. This can be alleviated by moving the mid-point of the curve upwards slightly, flattening the upper part of the curve and brightening the mid-tones. This emphasising of shadows is very similar to boosting contrast, but can create a more extreme result.

Brightening Mid-tones


Curves
☐ Show Clipping

Preset: Custom
Channel: RGB
Output: 152
Input: 106

For images with very high contrast sometimes it is necessary to boost the mid-tones to balance the image. To do this, set three points on the tone curve at roughly equal positions along the curve and then move the middle one upwards to achieve the effect. The other two points act as anchors, keeping the shadows and highlights unchanged. Moving the mid-point downwards has the opposite effect.

Levels

A quick, easy and accurate way to adjust brightness and contrast

In the Image > Adjustments menu you'll also find the Levels function, keyboard shortcut Cmd + L. The Levels function is easier to use than Curves and lets you quickly adjust the black and white points and overall brightness of your image. It's particularly useful for images that contain a lot of light or dark areas, such as dark objects on a light background, because it provides a method for fixing the lightest and darkest areas of the image, while leaving the mid-tones free to be adjusted upward or downward.

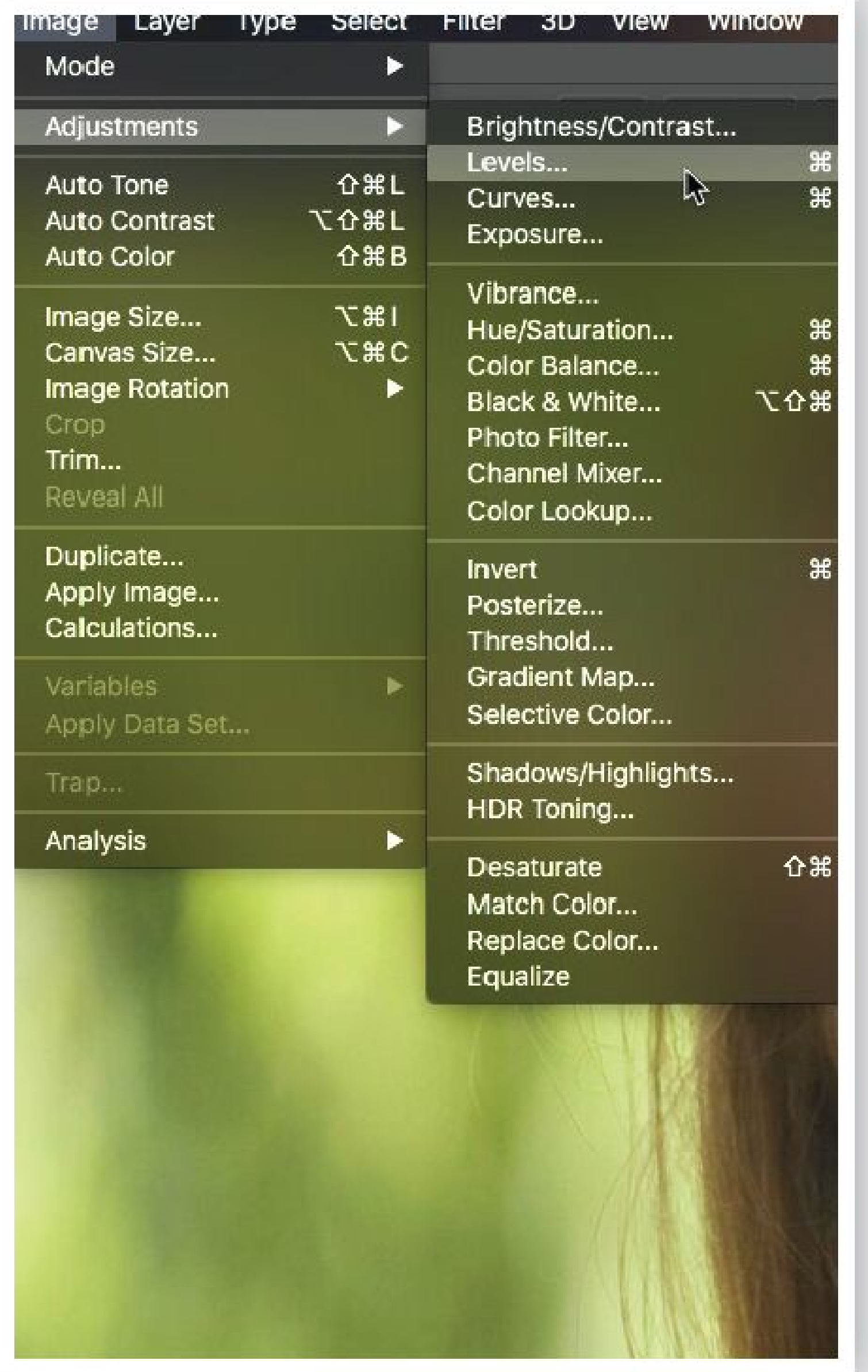
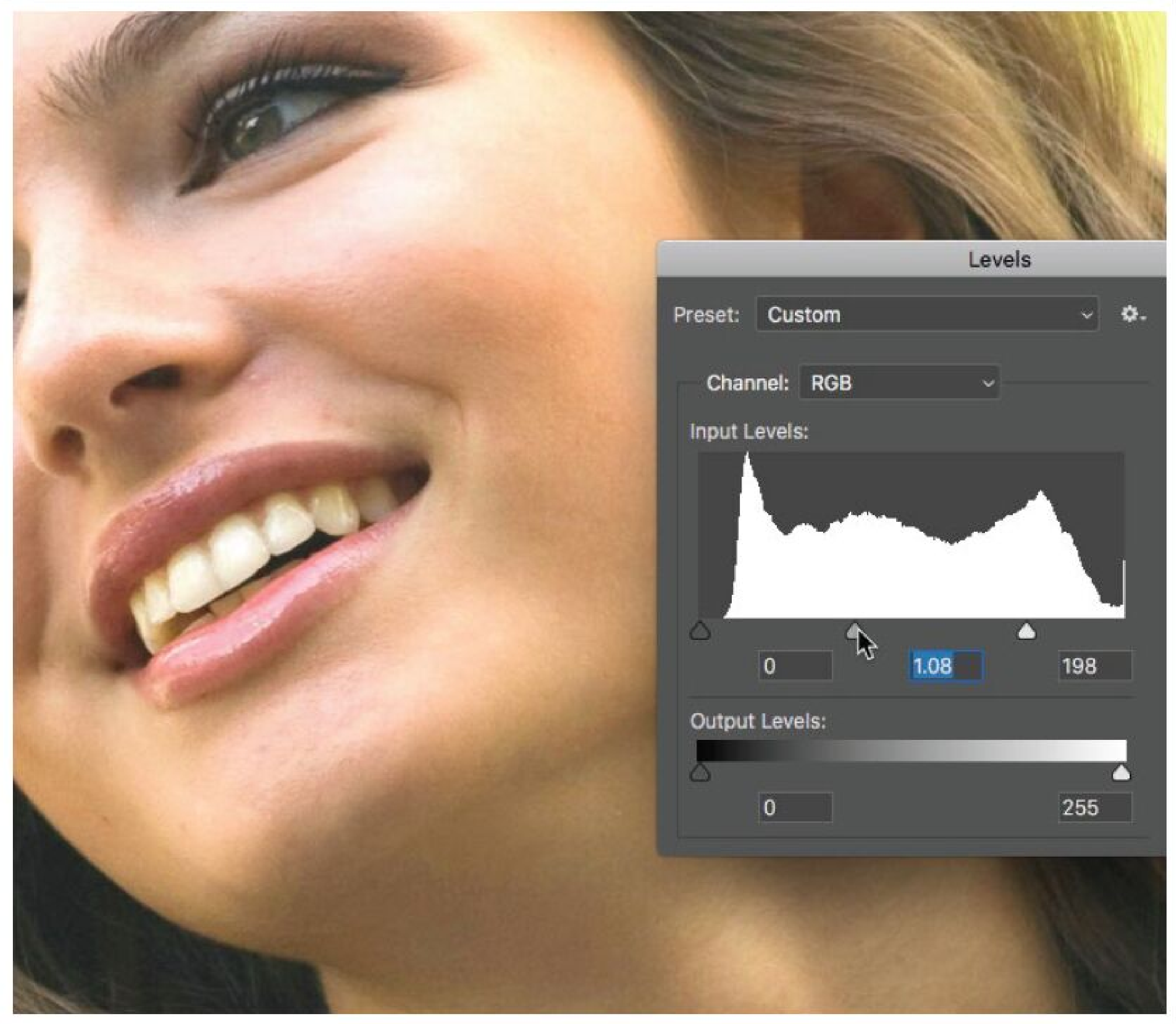


Image Layer Type Select Filter 3D View Window
Mode
Adjustments
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation
Crop
Trim...
Reveal All
Duplicate...
Apply Image...
Calculations...
Variables
Apply Data Set...
Trap...
Analysis
Brightness/Contrast...
Levels... ⌘
Curves... ⌘
Exposure...
Vibrance...
Hue/Saturation... ⌘
Color Balance... ⌘
Black & White... ⌥⇧⌘
Photo Filter...
Channel Mixer...
Color Lookup...
Invert ⌘
Posterize...
Threshold...
Gradient Map...
Selective Color...
Shadows/Highlights...
HDR Toning...
Desaturate ⇧⌘
Match Color...
Replace Color...
Equalize


Levels
Input Levels:
Output Levels:

Preset: Custom
Channel: RGB
Input Levels: 0 1.08 198
Output Levels: 0 255

Cropping and Resizing

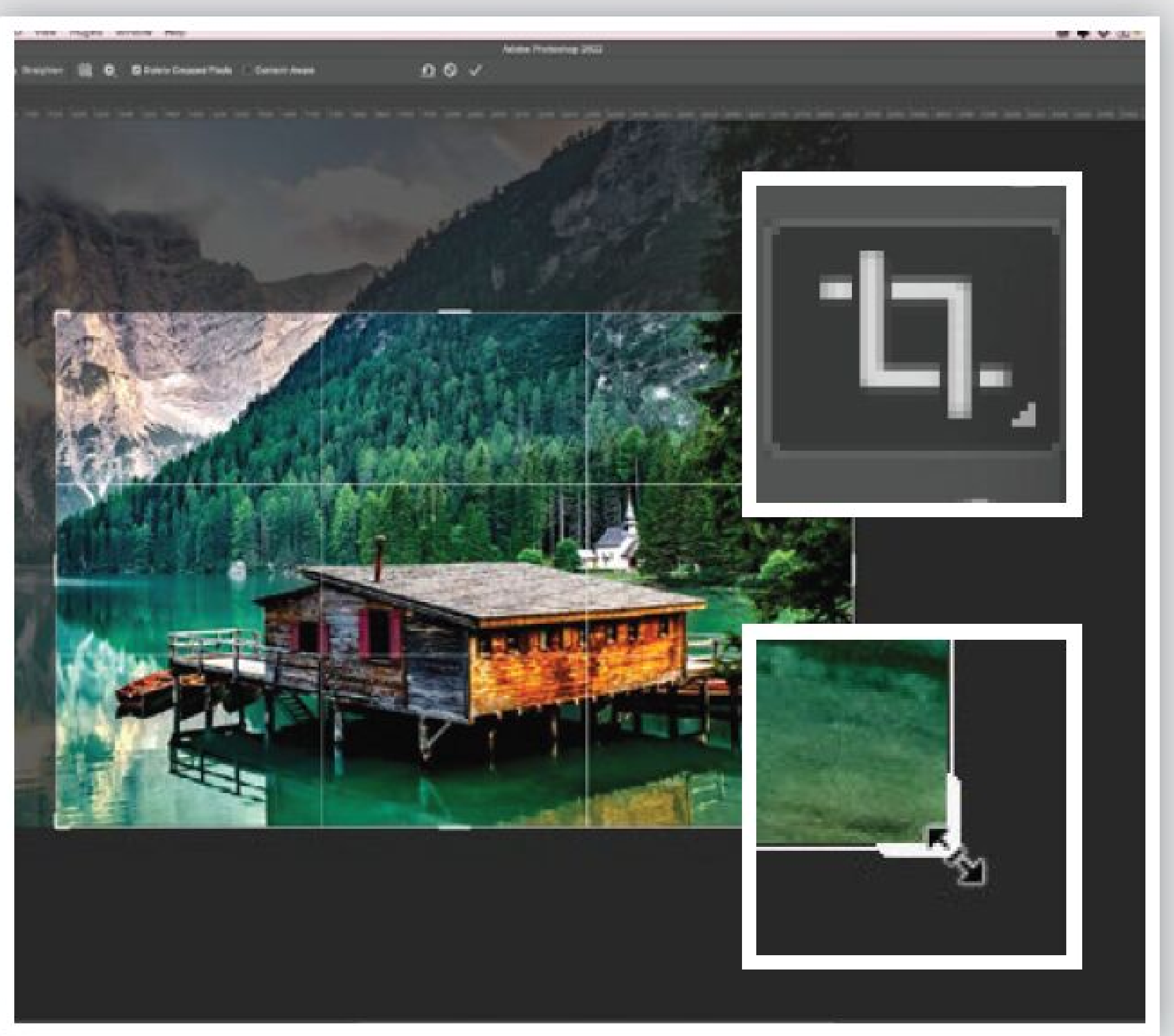
Changing the size of a digital photograph

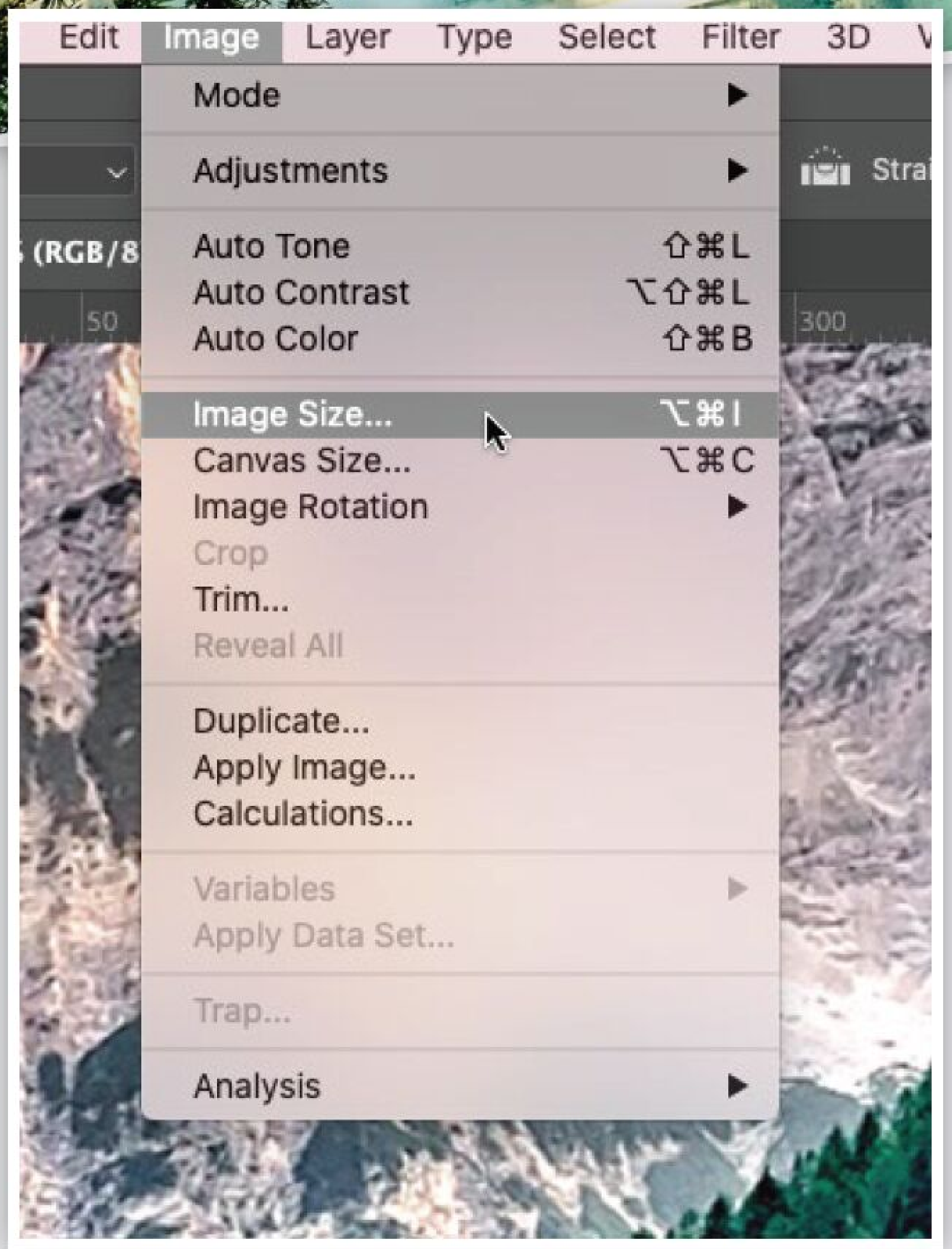
Sometimes a digital photograph can be the wrong size. Maybe you've got too much of the surroundings in the picture, when you wanted to concentrate on just the main subject, or maybe the whole image is too big, and you need to make it smaller to send via email or publish on a website. Doing both of these things is very quick and simple in Photoshop.

We'll use this landscape shot of an old shack and lake as the image to start with. What we want to do first is crop it down so we just have a tighter view of the shack.

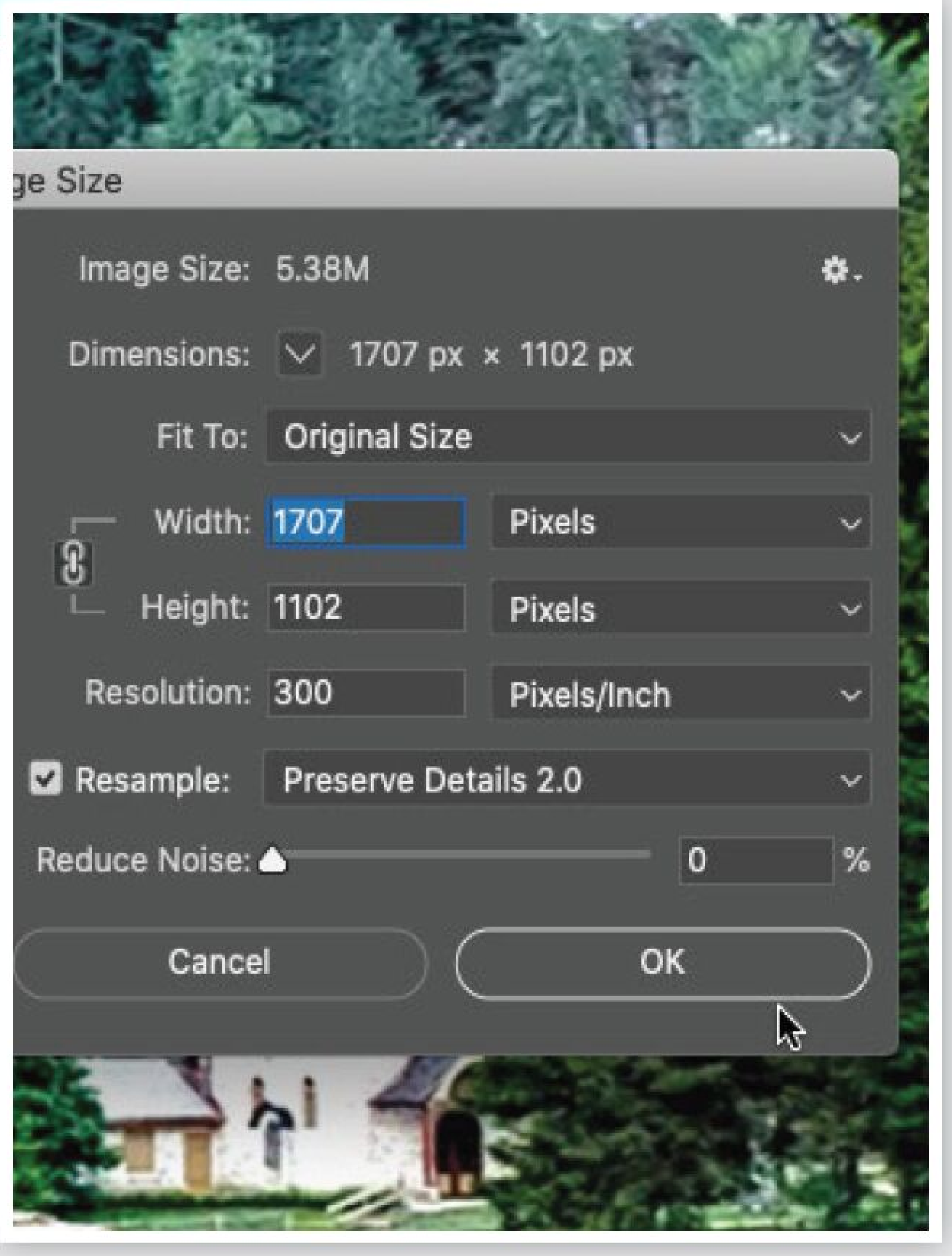
01 The best tool for the job is, not surprisingly, the Crop Tool. You'll find it in the tool palette, fourth down from the top. It looks a bit like two set-squares.

02 The Crop Tool is very easy to use. Simply click near one corner and then drag a box around the area you want to crop. Don't worry if you don't get the size exactly right first time, because you can adjust the size of the box by using the drag-handles on each side and corner. Press Enter to perform the crop.




Edit
Image
Layer
Type
Select
Filter
3D
Mode
Adjustments
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation
Crop
Trim...
Reveal All
Duplicate...
Apply Image...
Calculations...
Variables
Apply Data Set...
Trap...
Analysis

03 Next we'll resize the image to make it a more manageable size. To do this you'll need to get to the Image menu and select Image Size, or use the keyboard shortcut Alt + Cmd + I.



ge Size

Image Size: 5.38M

Dimensions: 1707 px × 1102 px

Fit To: Original Size

Width: 1707 Pixels

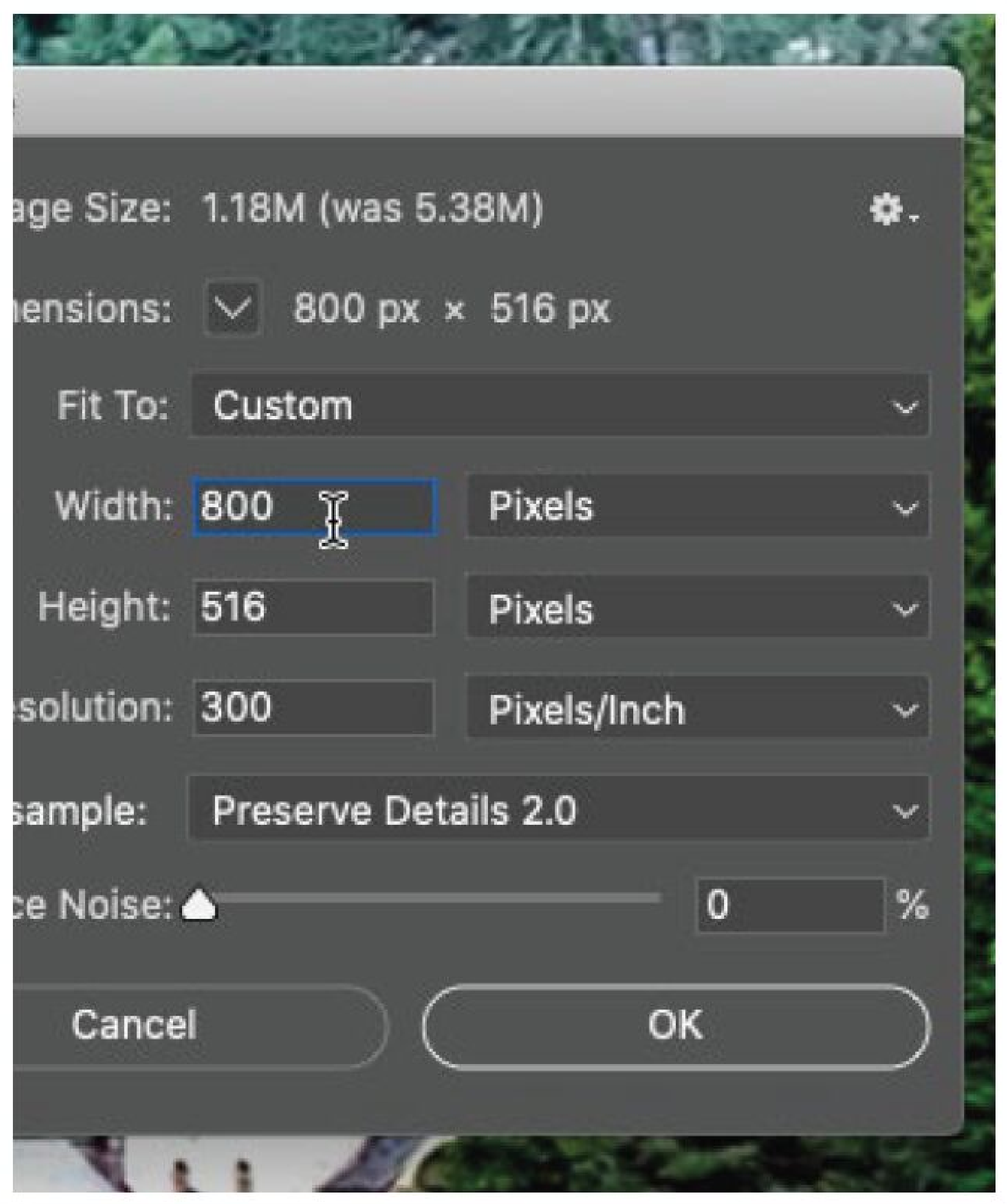
Height: 1102 Pixels

Resolution: 300 Pixels/Inch

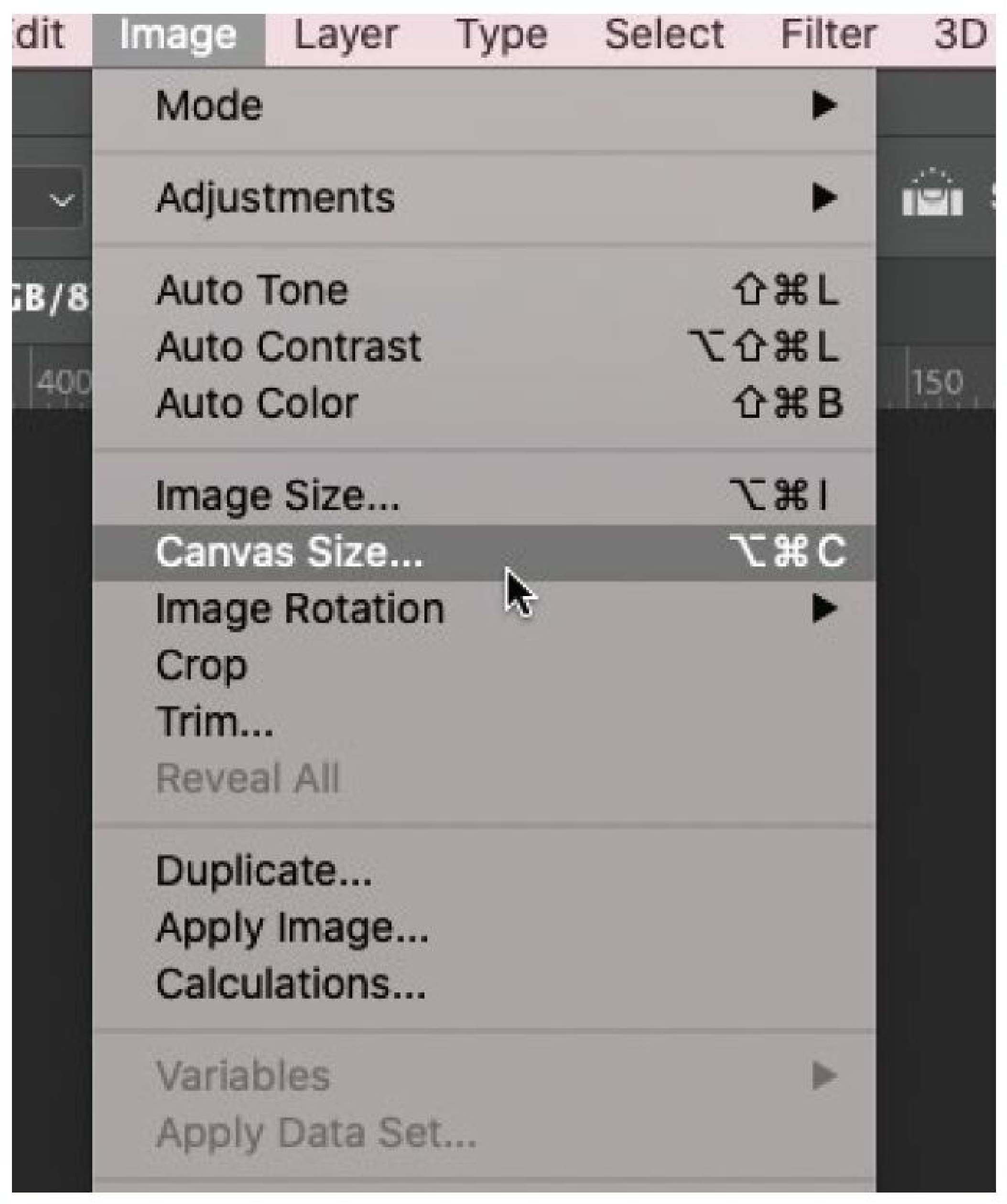
☑ Resample: Preserve Details 2.0

Reduce Noise: 0 %

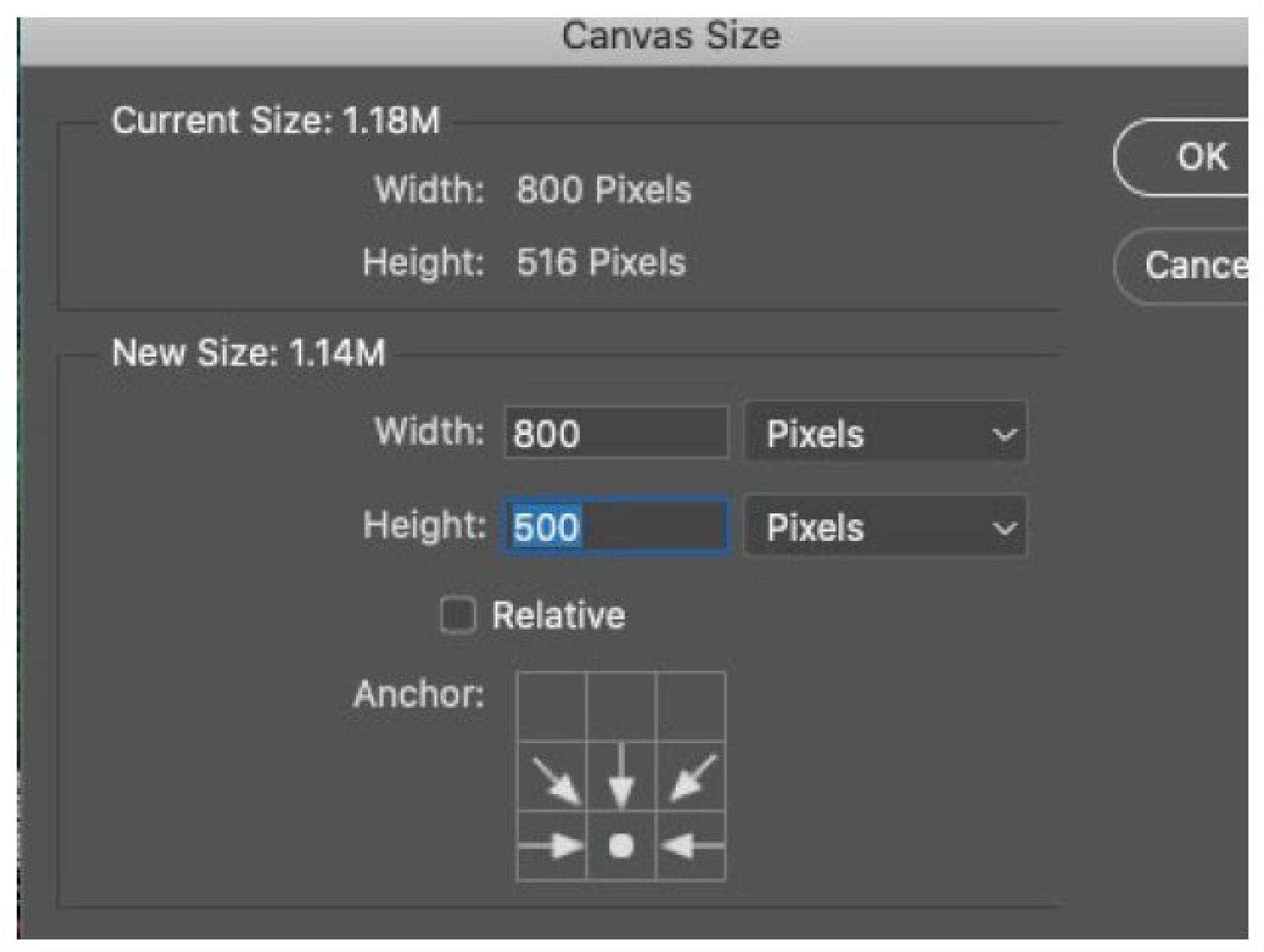
04 In the Image Size dialog box, check the box marked Resample Image, and open the drop-down option panel below it. We're reducing the size of this picture, so select Preserve Details 2.0.


age Size: 1.18M (was 5.38M)
ensions: 800 px × 516 px
Fit To: Custom
Width: 800 Pixels
Height: 516 Pixels
solution: 300 Pixels/Inch
sample: Preserve Details 2.0
e Noise: 0 %

05 In the Pixel Dimensions panel, enter the width that you want your image to appear. If we were preparing this picture for a website, a width of 800 pixels would be ideal. The height will change automatically to keep the aspect ratio the same. Press OK to resize the picture.


dit Image Layer Type Select Filter 3D
Mode
Adjustments
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation
Crop
Trim...
Reveal All
Duplicate...
Apply Image...
Calculations...
Variables
Apply Data Set...

06 Next, go back to the Image menu, but this time choose Canvas Size, or use the keyboard shortcut Cmd + Alt + C. Canvas Size will allow you to be able to extend the dimensions of your current document by adding extra pixels to the image. Bear in mind this is different than simply resizing the image.


Canvas Size
Current Size: 1.18M
Width: 800 Pixels
Height: 516 Pixels
New Size: 1.14M
Width: 800 Pixels
Height: 500 Pixels
☐ Relative
Anchor:

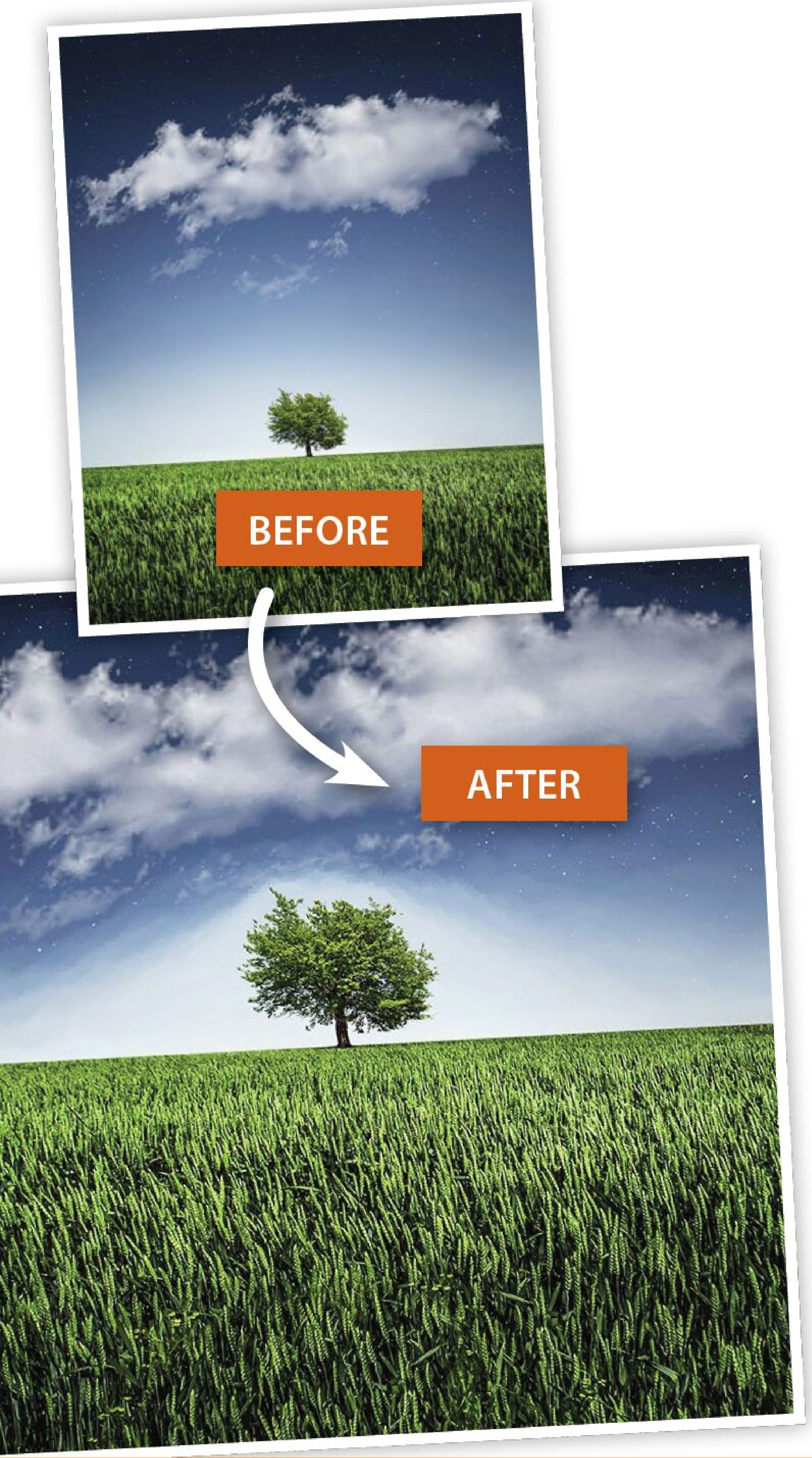
07 You'll see the current size in pixels at the top of the panel, with the width as 800 pixels. In the lower window put in a height of 500 pixels. If your main subject is not in the centre of the frame, you can alter the anchor point by clicking on the arrows surrounding the box below. Click OK to perform the resize. You'll get a warning that you're about to chop off part of the image, but just ignore it.

Now we've resized the image to 800 x 500, a convenient size for display on many mobile devices, and ideal for uploading to a website or sending via email.

Content-aware Fill and Scale

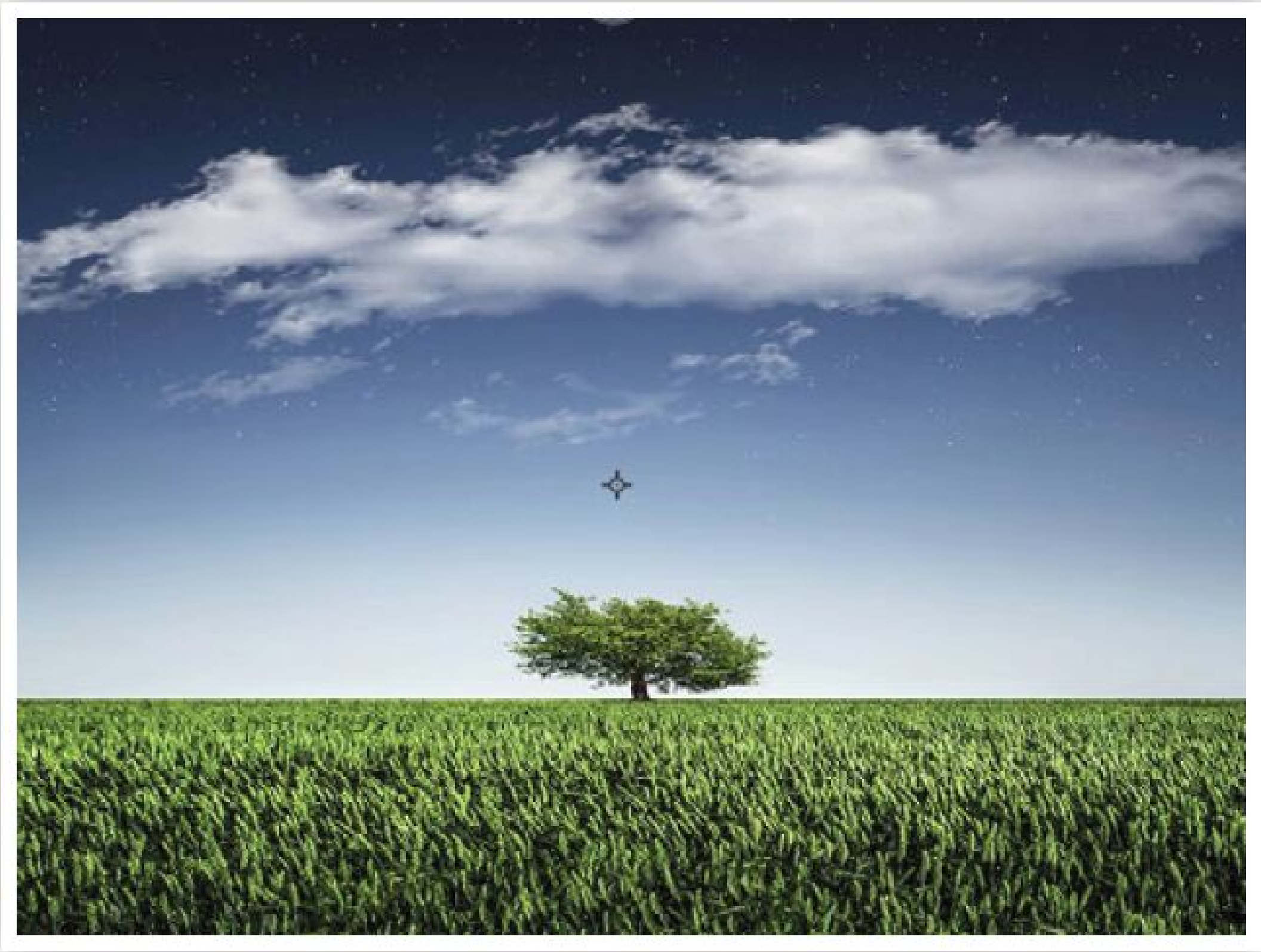
Photoshop contains image processing technology so advanced it looks like magic

Photoshop CS4 introduced the world to an amazing new technology called Content-aware Scaling, which can resize an image while preserving the proportions of important image elements. It works by analysing the image and removing lines of pixels that contain relatively little information, so that a plain background will be affected before the main subject. The best way to illustrate the effect is with examples, such as this image of a tree and clouds.

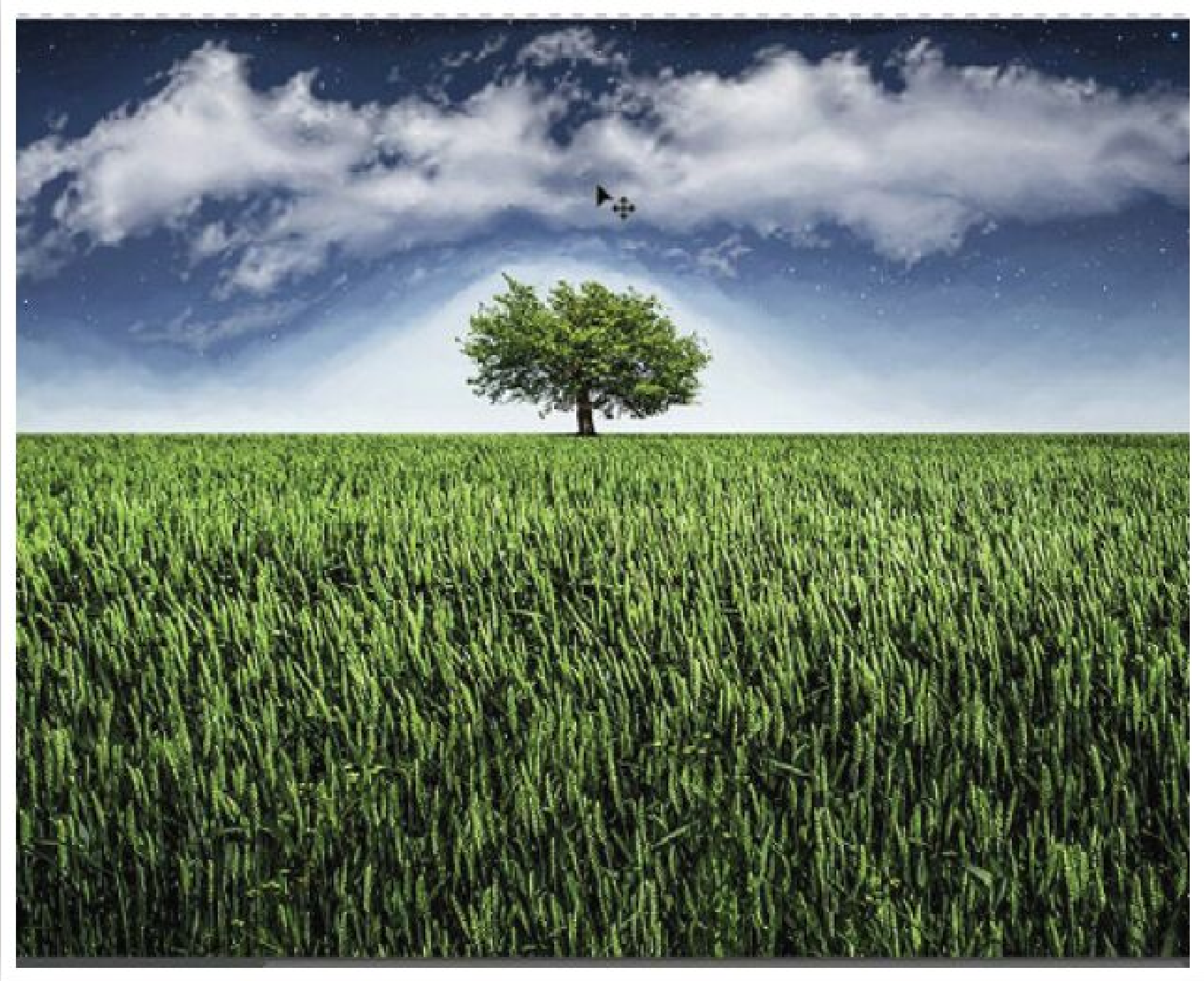

BEFORE
AFTER

Content-aware Scaling

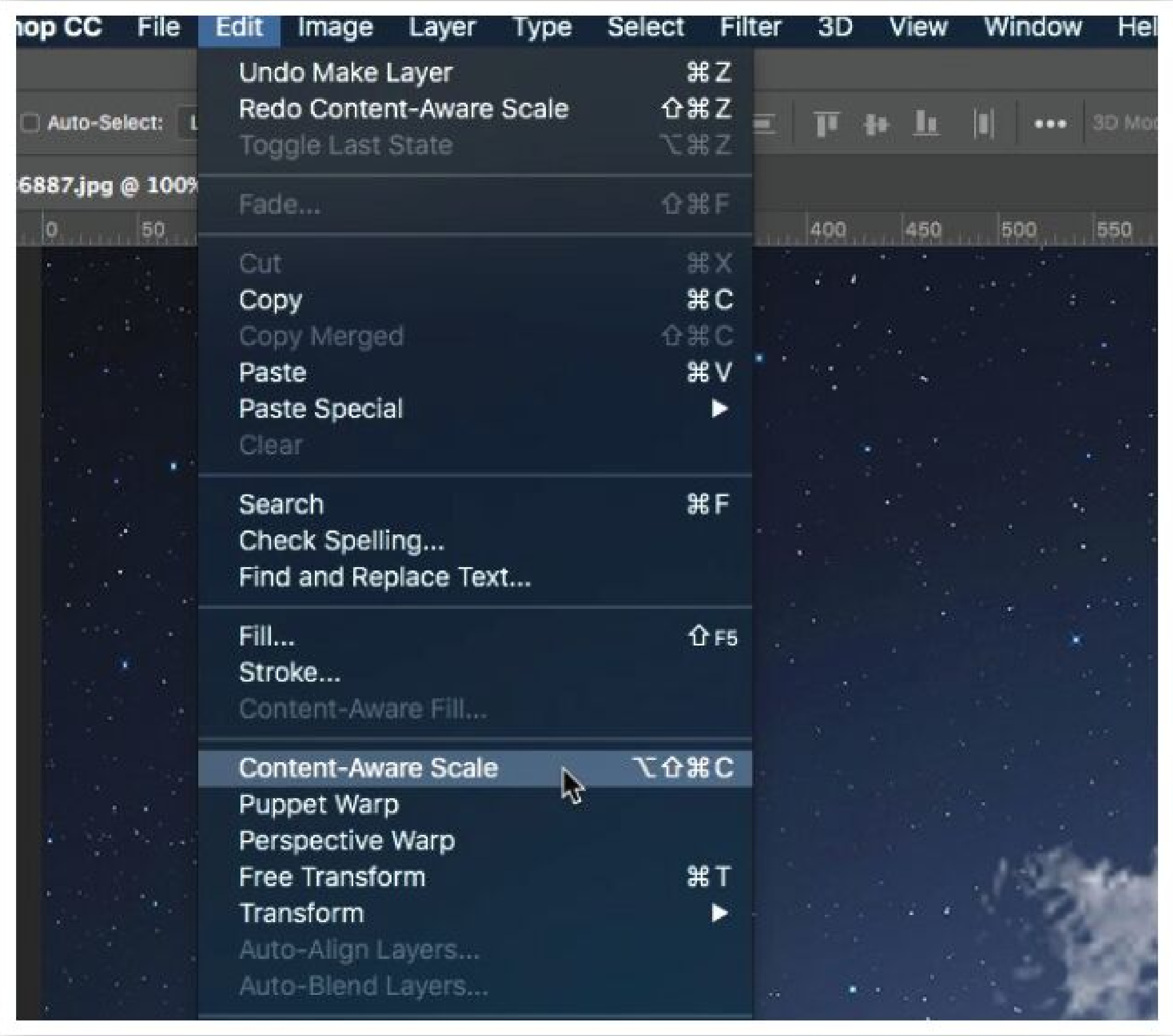
01 If we resize the image vertically by 60 percent using the standard Photoshop Image Size menu option, the tree and clouds will end up looking flattened and out of proportion, since their height has also been reduced by about 60 percent.



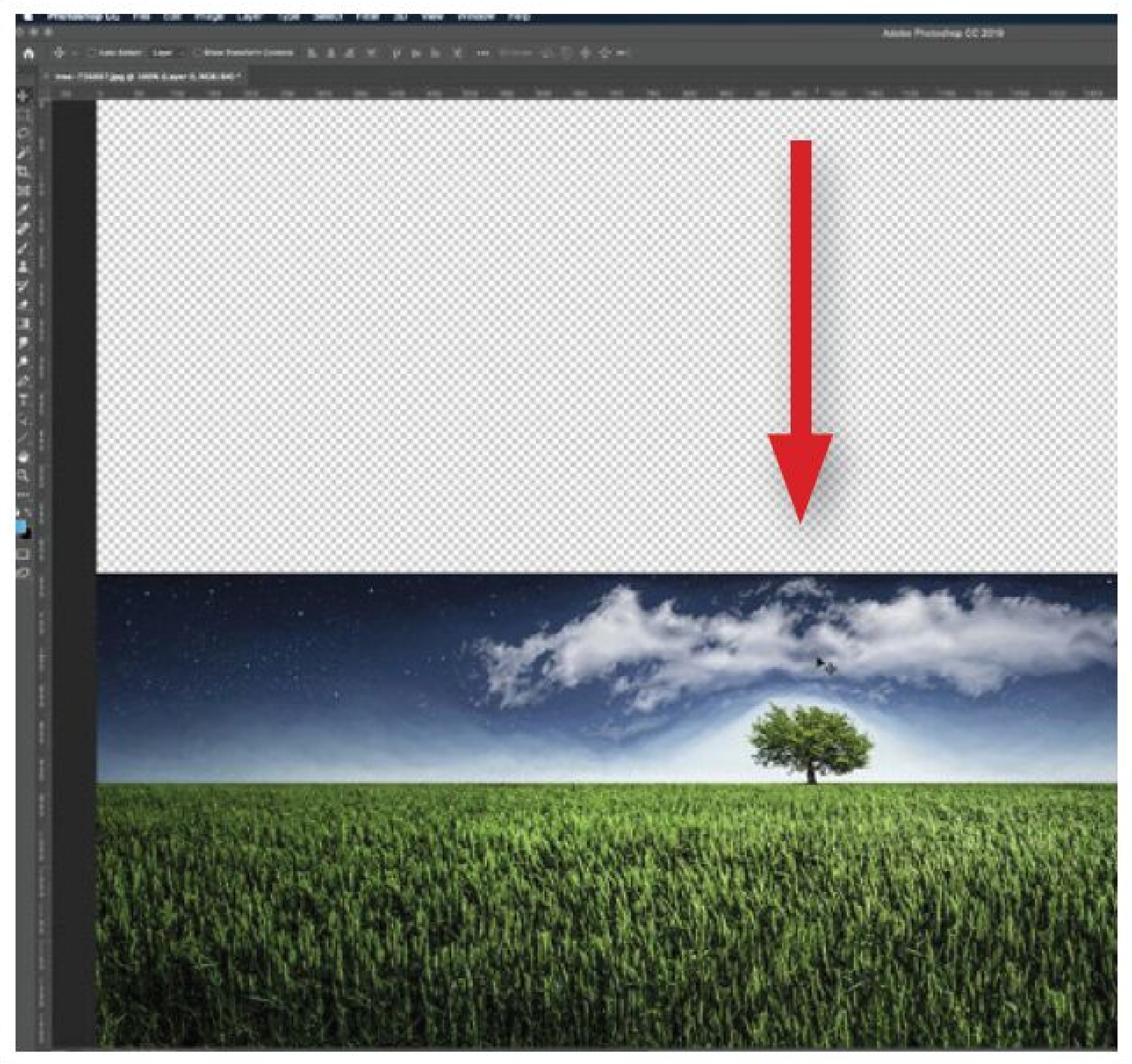
02 However if we use Content-aware Scaling, the clever algorithm detects that the areas that are just sky contain relatively little information and so this time when we re-scale the image it deletes those pixels first, preserving the more information-rich pixels that hold the details including the tree. As a result a 60 percent height reduction leaves the scene looking relatively unchanged, although the area of blue sky has been reduced.



03 You'll find Content-aware Scaling in the Edit menu, but it will be greyed out unless you've converted the image into a layer.


hop CC File Edit Image Layer Type Select Filter 3D View Window Hel
Auto-Select:
6887.jpg @ 100%
Undo Make Layer ⌘Z
Redo Content-Aware Scale ⇧⌘Z
Toggle Last State ⌥⌘Z
Fade... ⇧⌘F
Cut ⌘X
Copy ⌘C
Copy Merged ⇧⌘C
Paste ⌘V
Paste Special
Clear
Search ⌘F
Check Spelling...
Find and Replace Text...
Fill... ⇧F5
Stroke...
Content-Aware Fill...
Content-Aware Scale ⌥⇧⌘C
Puppet Warp
Perspective Warp
Free Transform ⌘T
Transform
Auto-Align Layers...
Auto-Blend Layers...

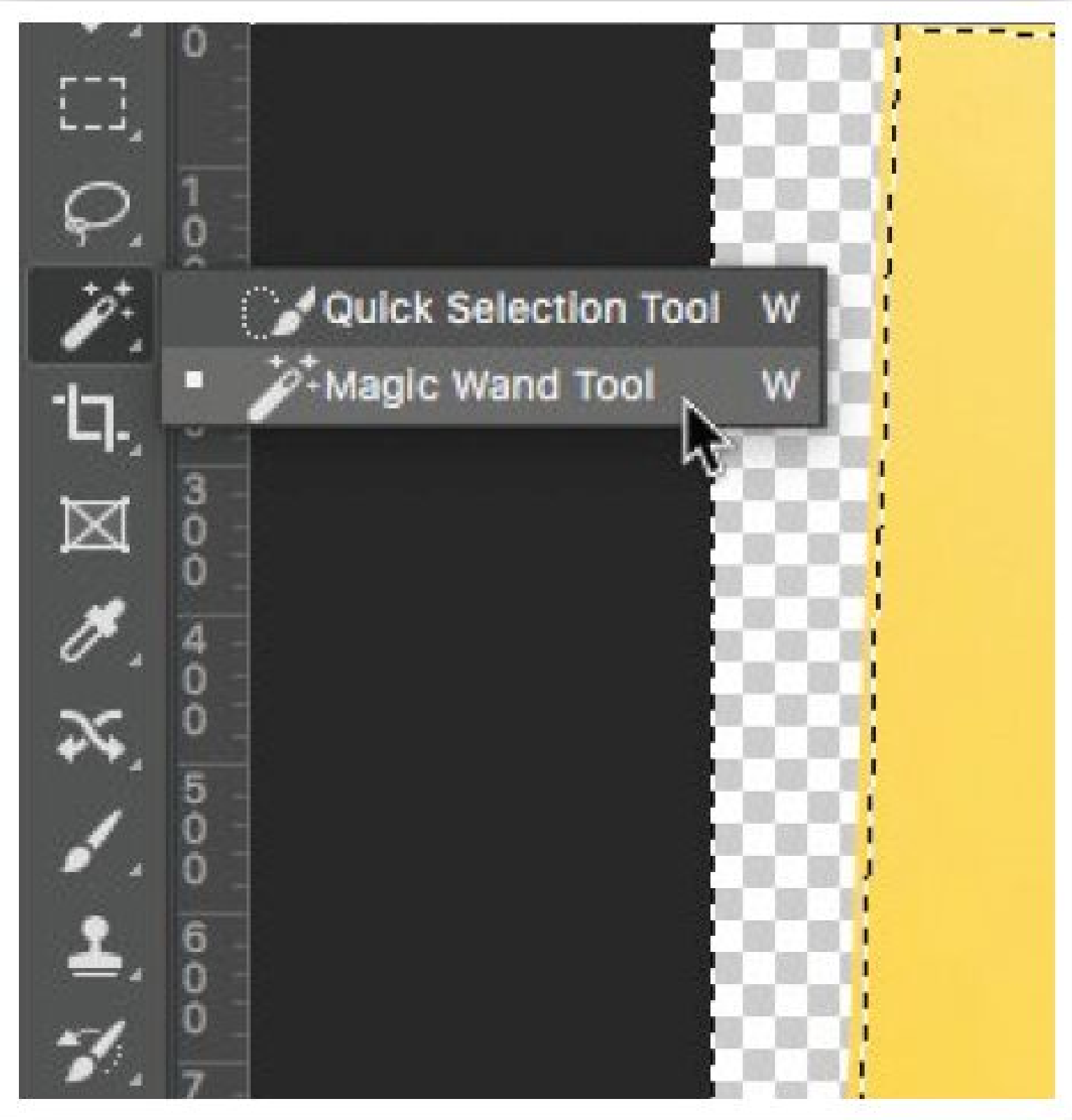
04 You use Content-aware Scaling in just the same way as the normal Image Size option. Either drag the handles on each edge in the direction you want, or directly enter the proportions into the text boxes on the tool options bar. Content-aware Scaling works for both height and width and can also be used to enlarge an image.

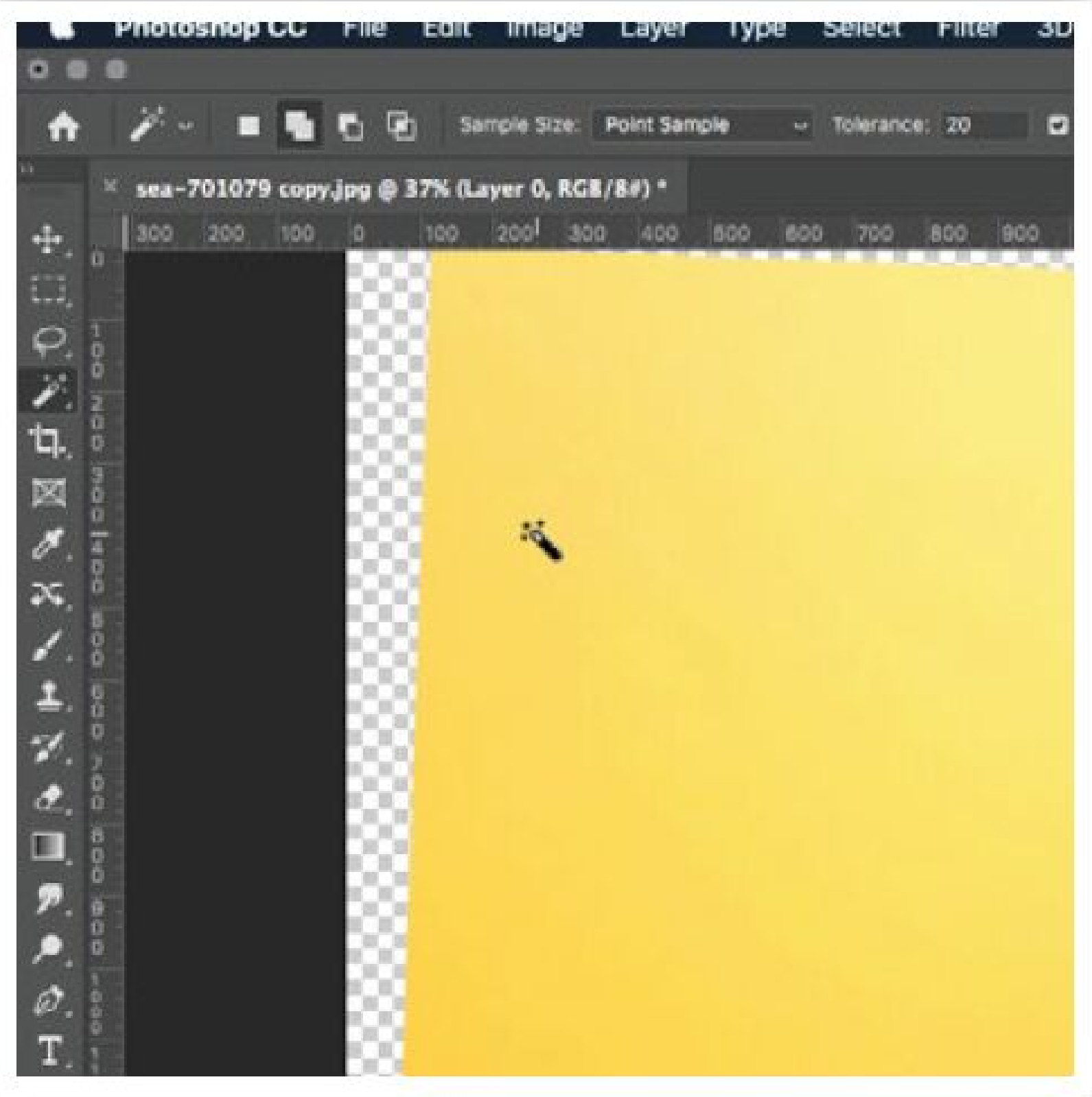


Content-aware Fill and Move

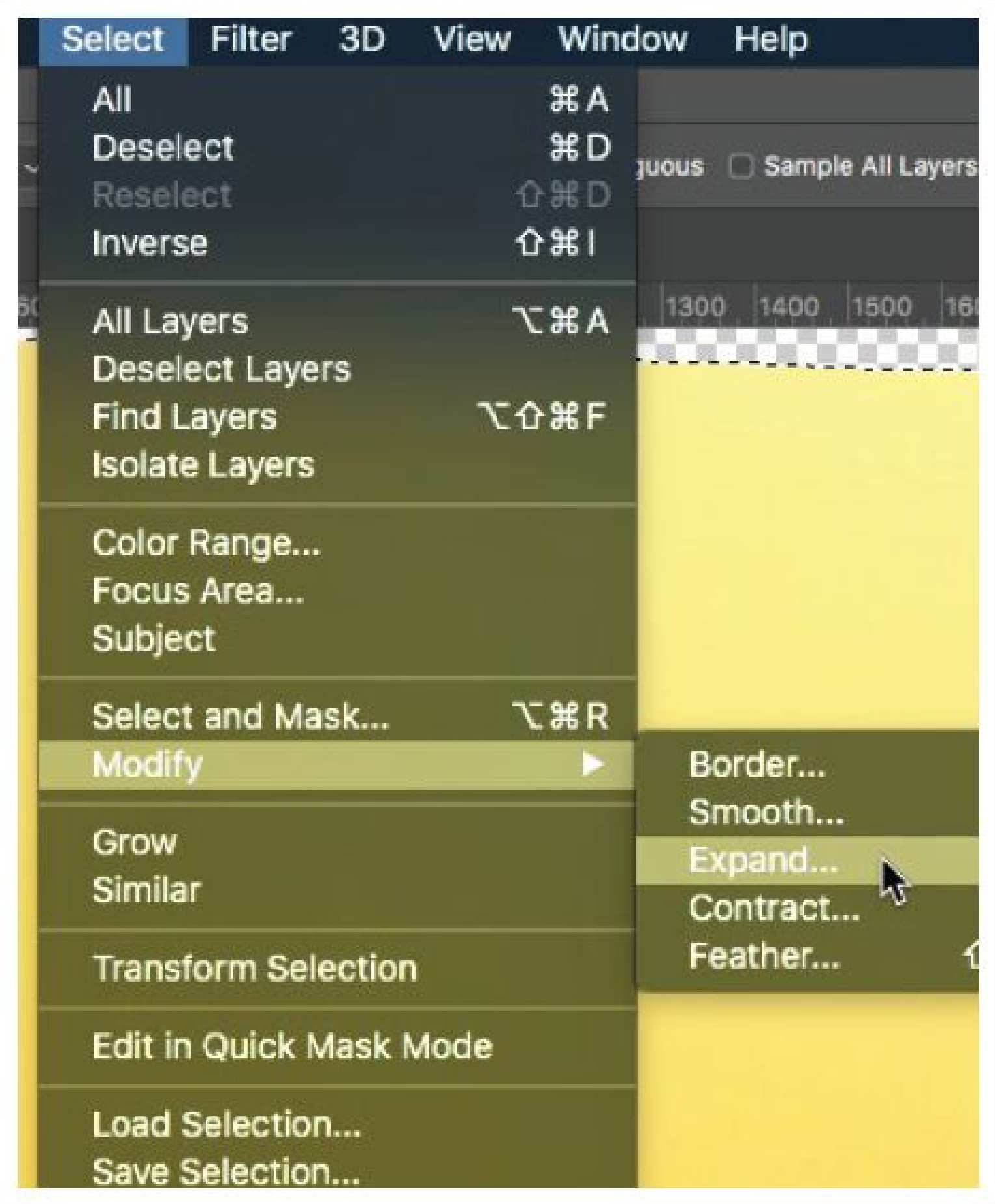
Photoshop CS5 took the content-aware technology further with the introduction of Content-aware Fill. This extremely useful function can fill in blank areas of an image with an approximation of the surrounding area, which makes it particularly handy for filling those triangular edges that are left after rotating an image, for example when levelling the horizon line. Again it's relatively easy to use.

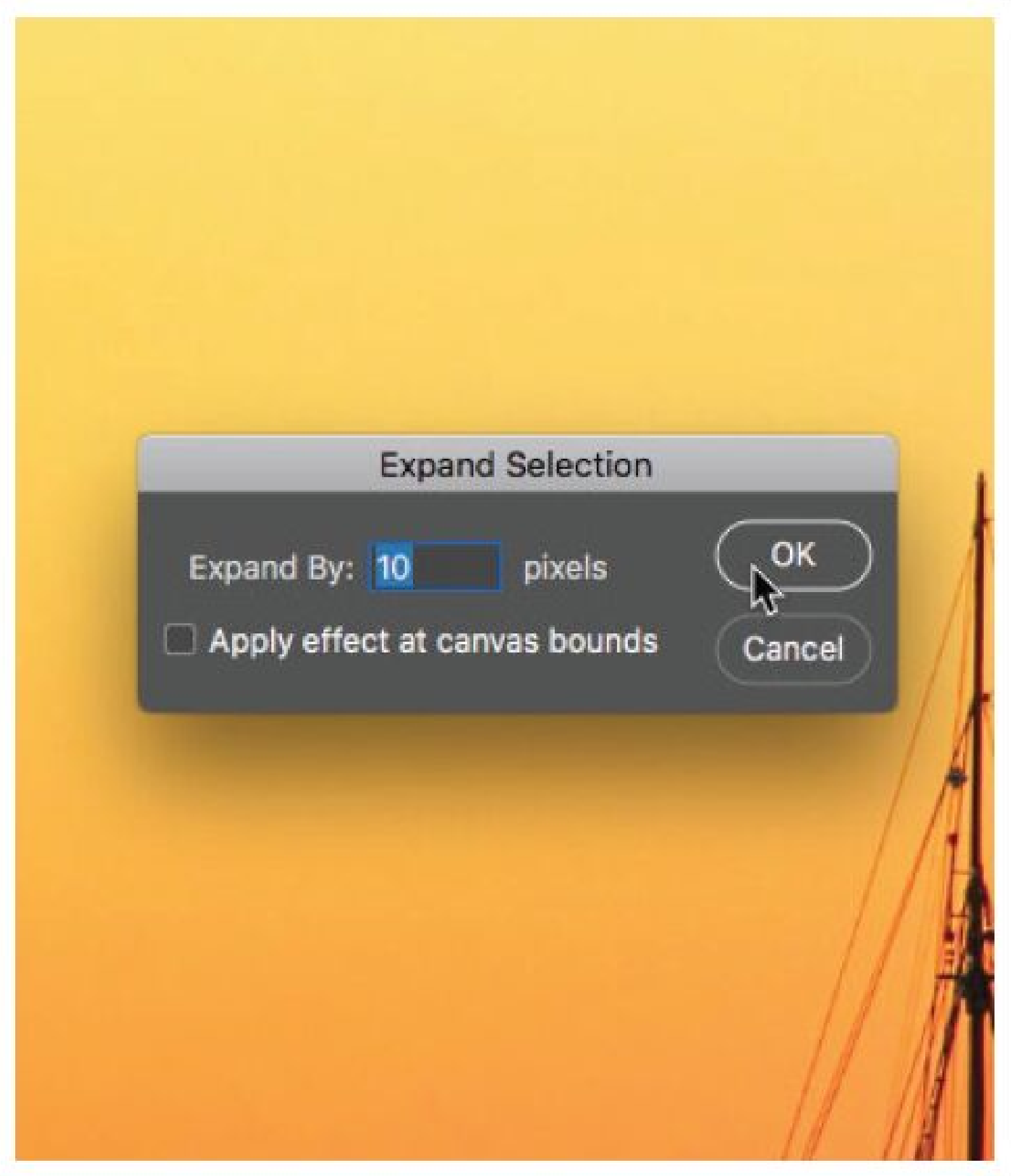
01 Starting with an image that has just been rotated, leaving those empty triangles, take the Magic Wand tool and select the plain areas.


Quick Selection Tool W
Magic Wand Tool W

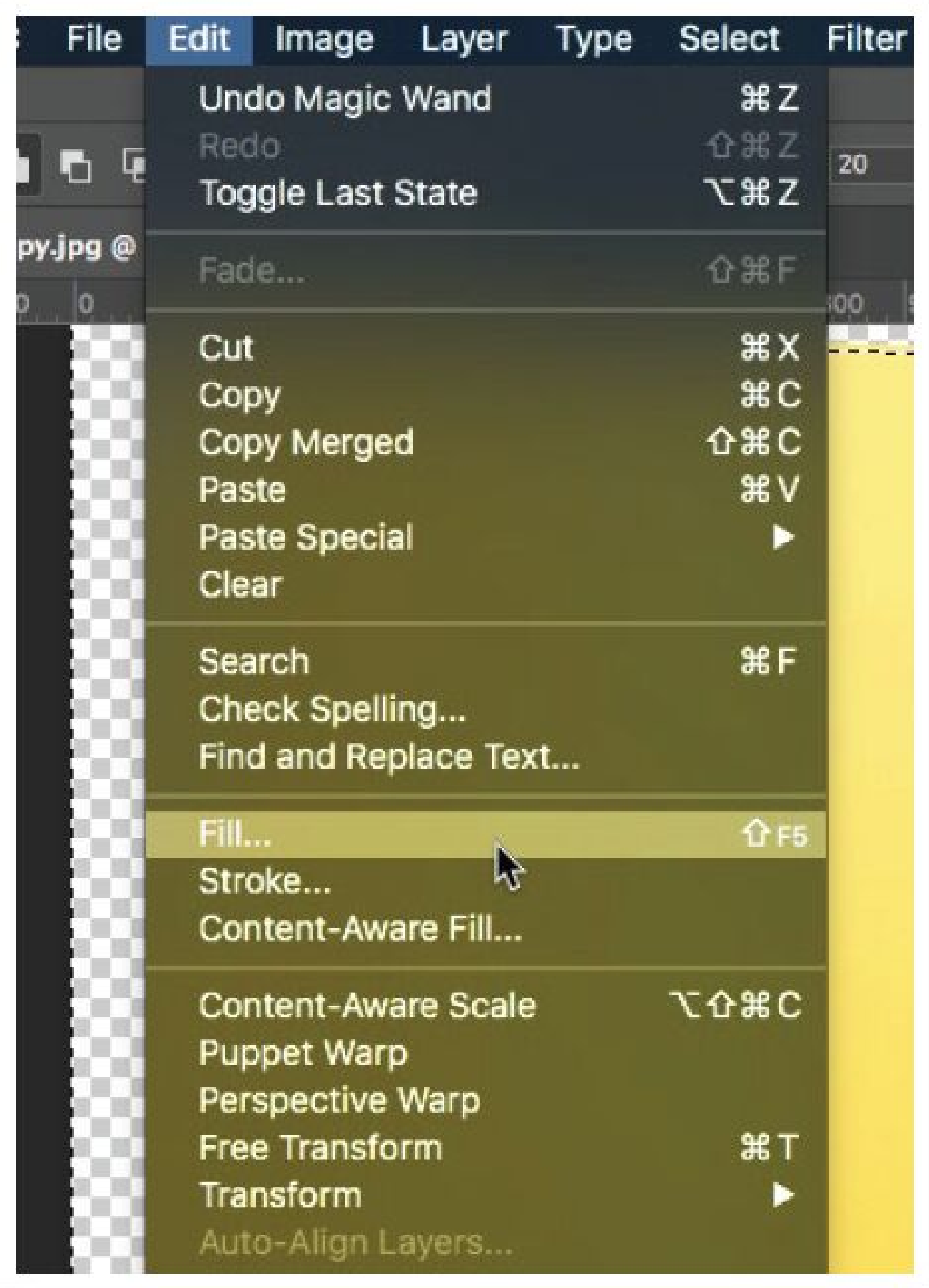

Photoshop CC File Edit Image Layer Type Select Filter 3D
Sample Size: Point Sample
Tolerance: 20
sea-701079 copy.jpg @ 37% (Layer 0, RGB/8#) *

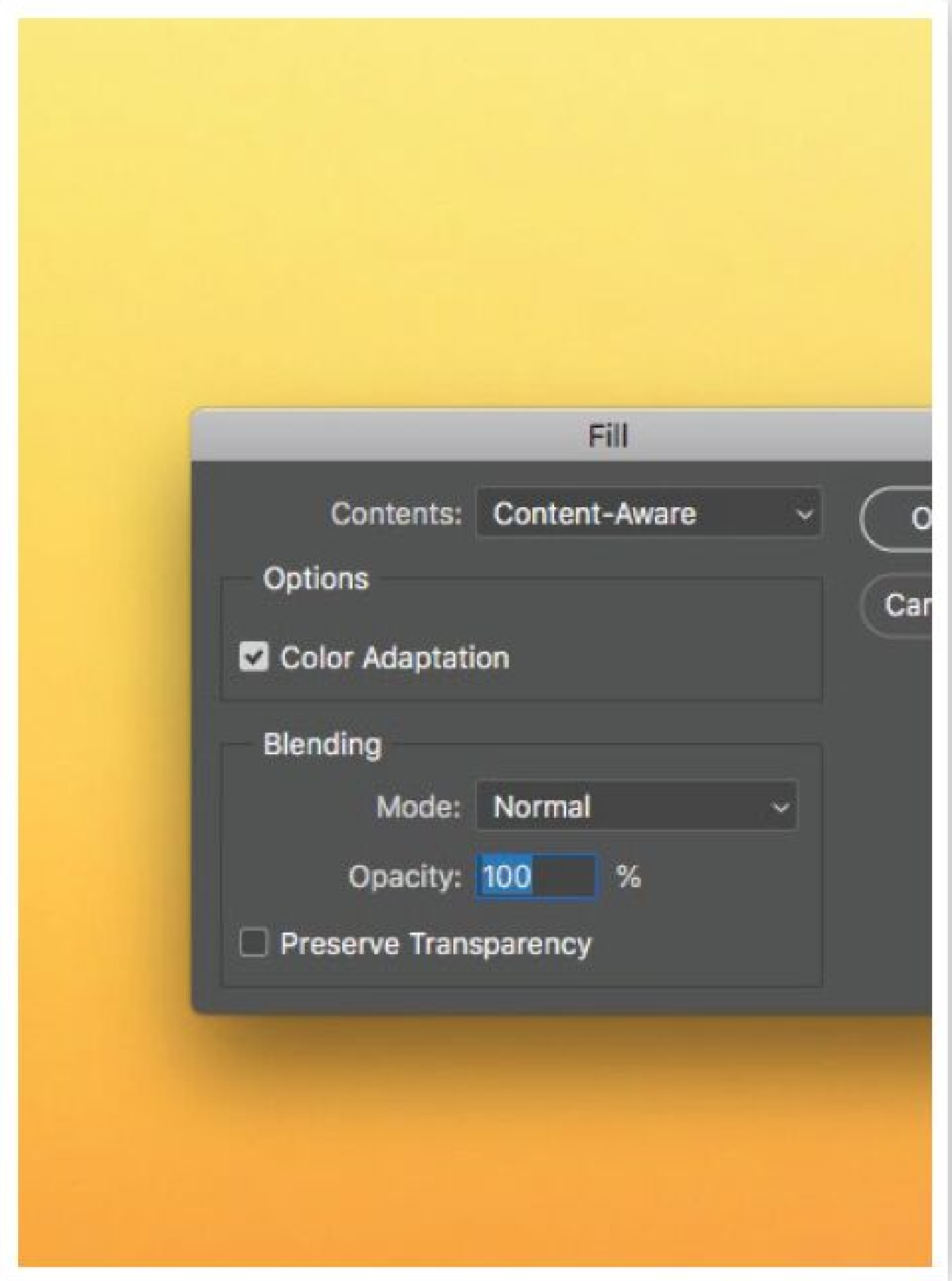
02 Next, go to the Select menu and click on Modify > Expand. Increase the selection area by a decent amount; for this picture 10 pixels should do nicely.


Select Filter 3D View Window Help
All ⌘A
Deselect ⌘D
Reselect ⇧⌘D
Inverse ⇧⌘I
All Layers ⌥⌘A
Deselect Layers
Find Layers ⌥⇧⌘F
Isolate Layers
Color Range...
Focus Area...
Subject
Select and Mask... ⌥⌘R
Modify
Grow
Similar
Transform Selection
Edit in Quick Mask Mode
Load Selection...
Save Selection...
Border...
Smooth...
Expand...
Contract...
Feather...
Sample All Layers

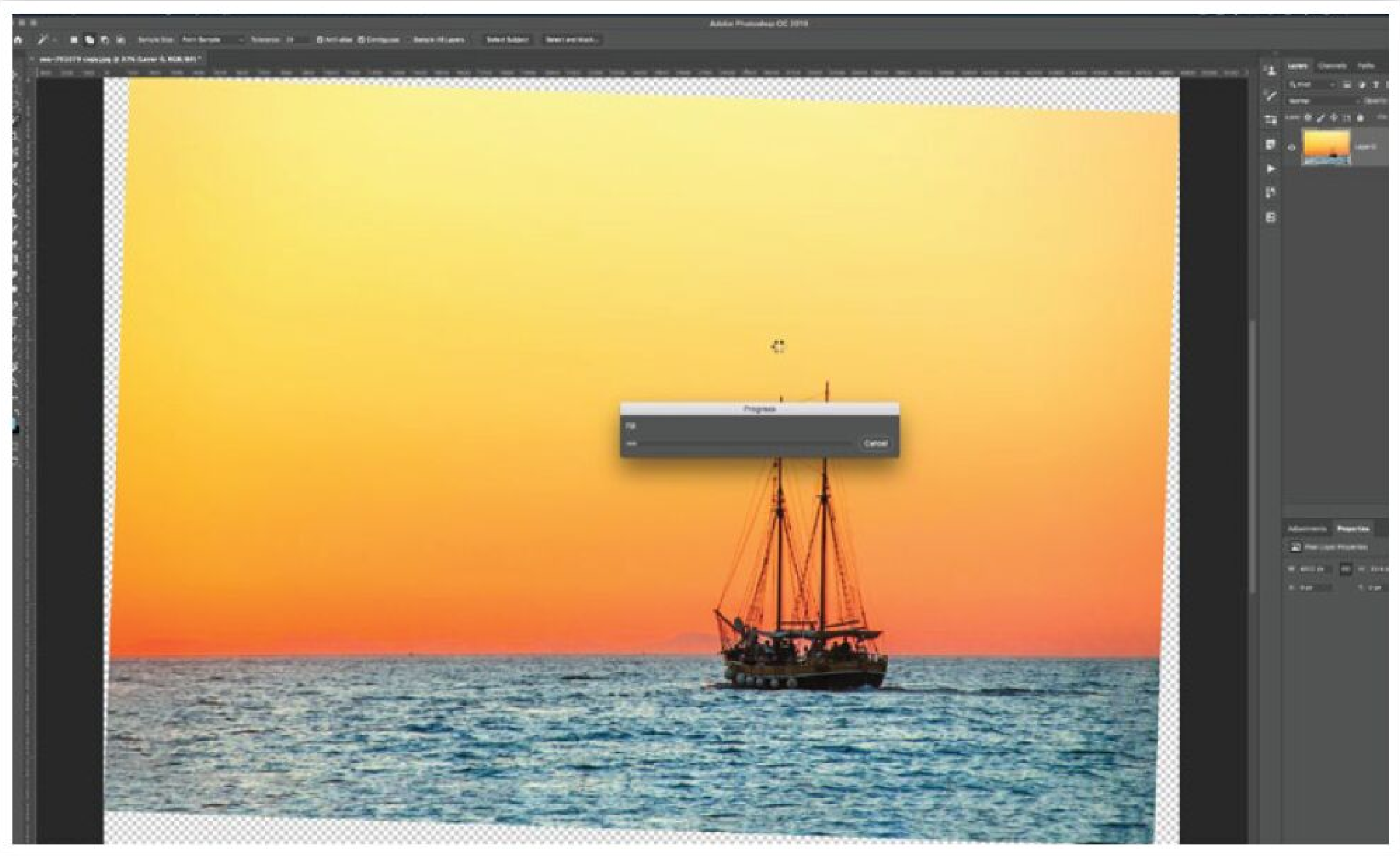

Expand Selection
Expand By: 10 pixels
☐ Apply effect at canvas bounds

03 You'll find Fill in the Edit menu. Click on it and you'll see the Fill options window appear. Content-aware should be selected by default, but if not choose it from the drop-down menu.


File Edit Image Layer Type Select Filter
Undo Magic Wand ⌘Z
Redo ⇧⌘Z
Toggle Last State ⌥⌘Z
Fade... ⇧⌘F
Cut ⌘X
Copy ⌘C
Copy Merged ⇧⌘C
Paste ⌘V
Paste Special
Clear
Search ⌘F
Check Spelling...
Find and Replace Text...
Fill... ⇧F5
Stroke...
Content-Aware Fill...
Content-Aware Scale ⌥⇧⌘C
Puppet Warp
Perspective Warp
Free Transform ⌘T
Transform
Auto-Align Layers...

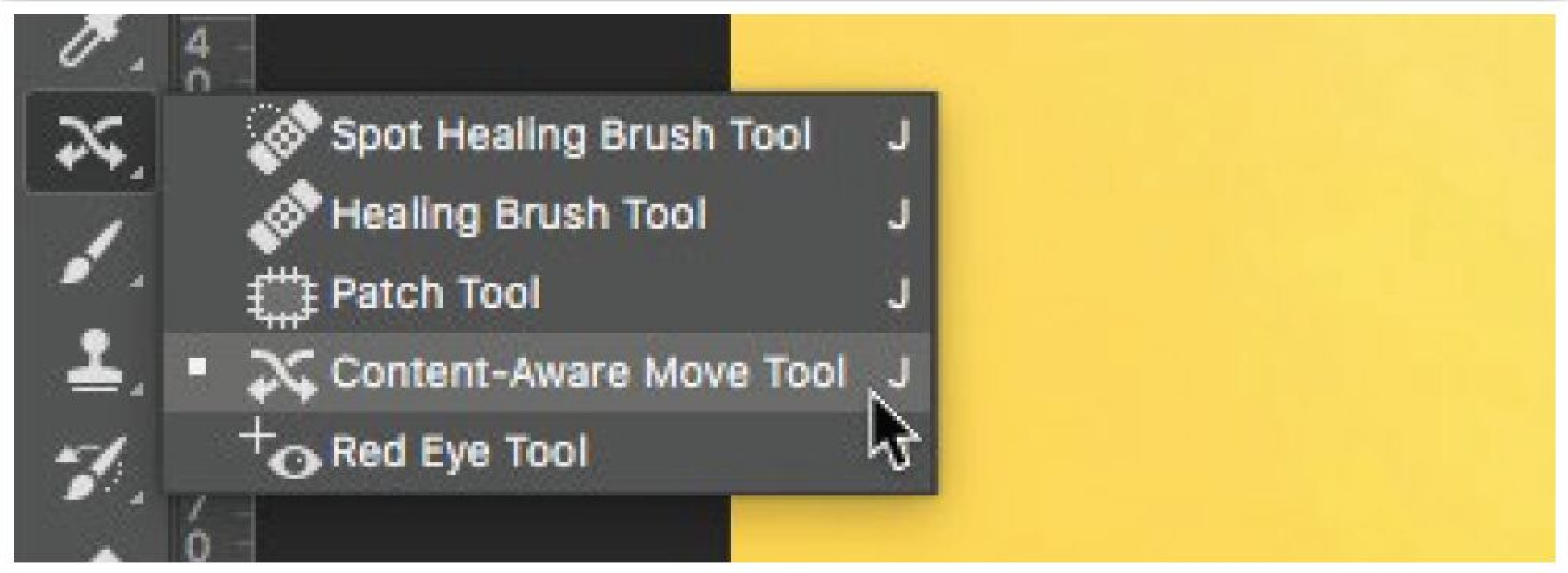

Fill
Contents: Content-Aware
Options
☑ Color Adaptation
Blending
Mode: Normal
Opacity: 100 %
☐ Preserve Transparency

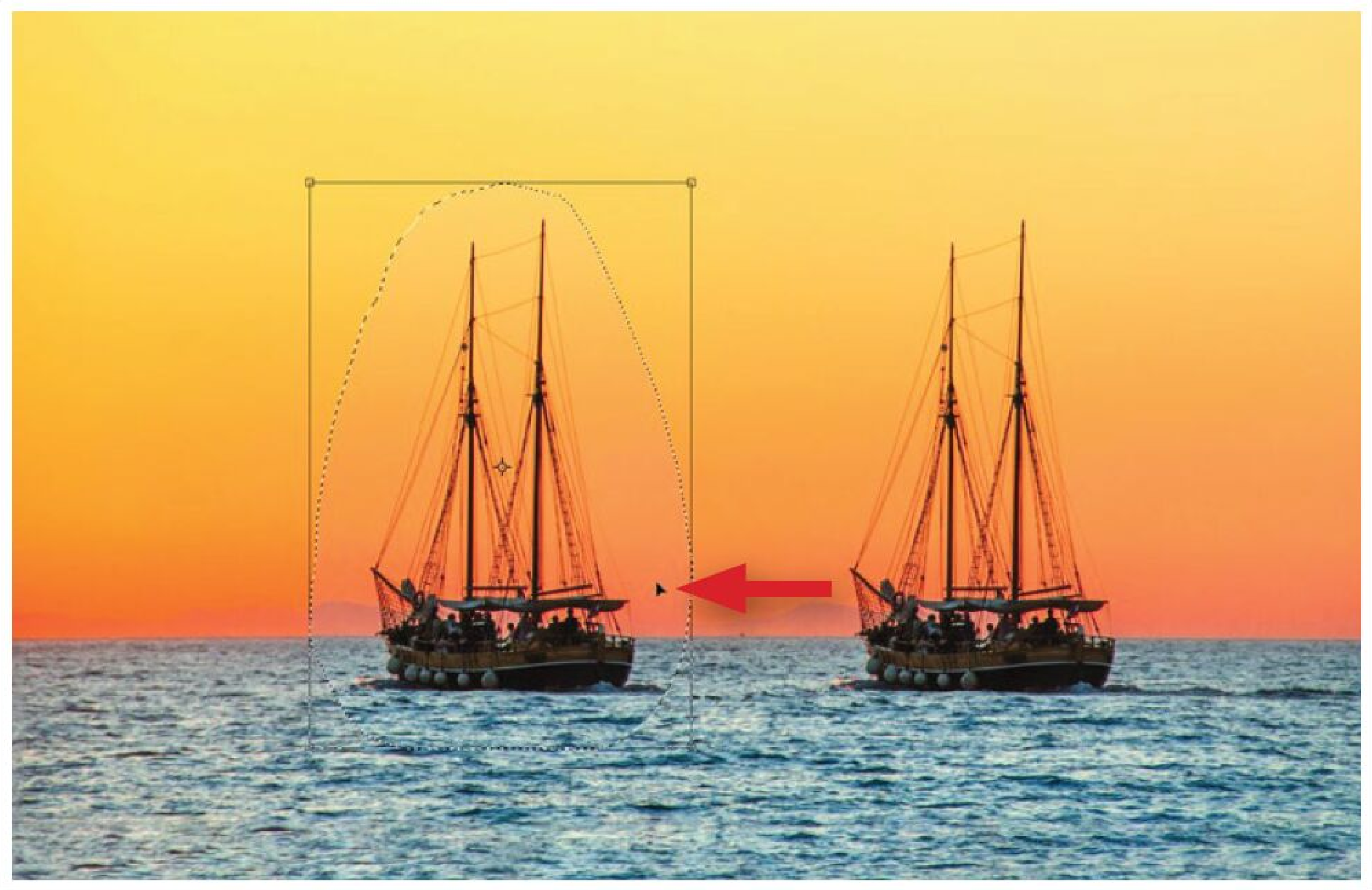
04 There will be a short pause while Photoshop analyses the image, but then it will fill in the blank areas with a texture derived from the content of the immediately surrounding area.


Progress
Cancel

05 Content-aware Move is a new feature introduced with Photoshop CS6 and uses the same technology as Content-aware Fill. The idea is that you can select an object on a background and move it to a new area of the image. The Content-aware algorithm should automatically fill in the area that you moved from and also blend in the moved object.

In practice it's not actually much use unless the object to be moved is on a virtually plain background, in which case it's often simpler to use the Clone Stamp anyway, but some people may find it useful.


Spot Healing Brush Tool J
Healing Brush Tool J
Patch Tool J
Content-Aware Move Tool J
Red Eye Tool J



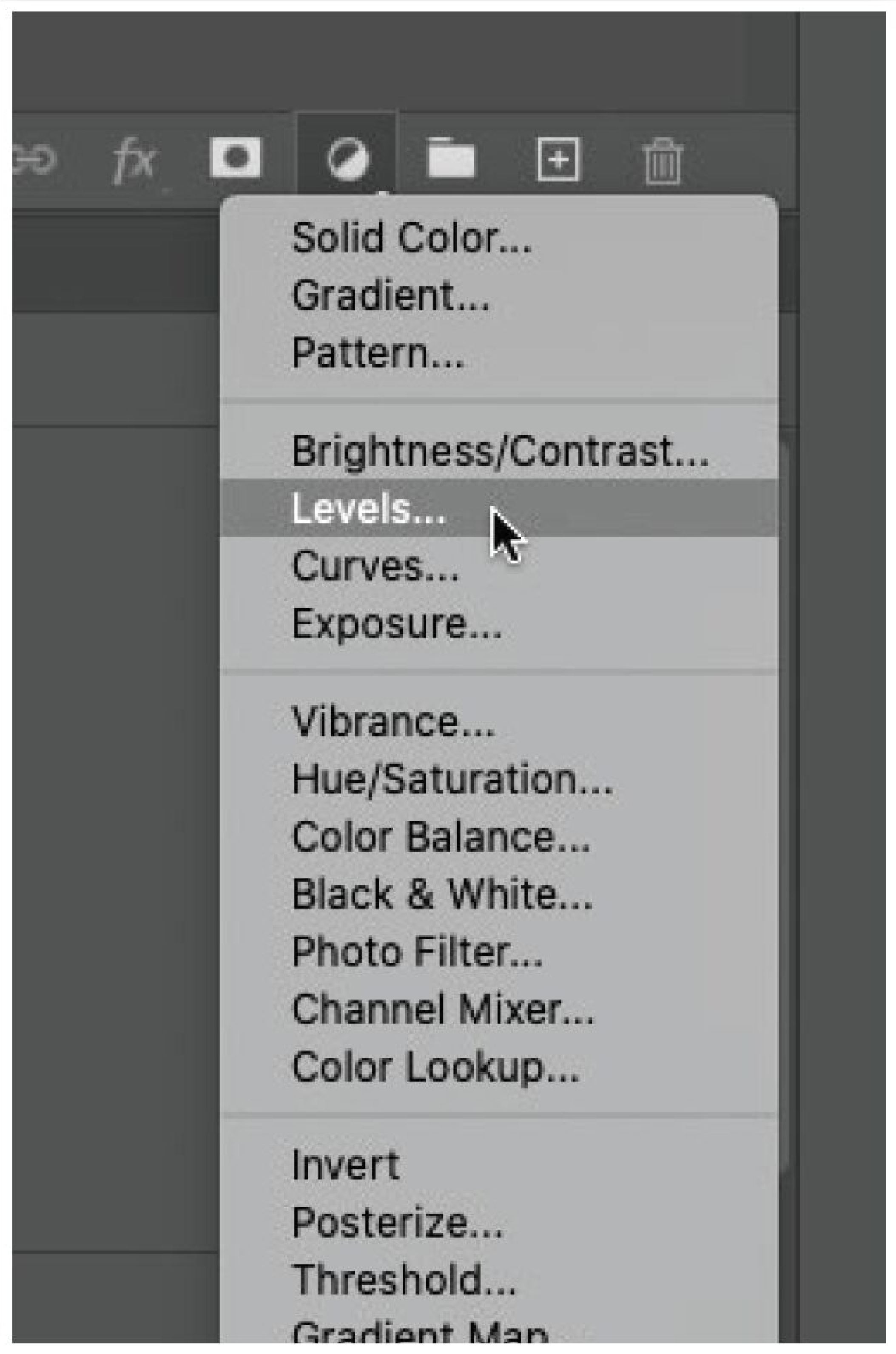
More Photoshop Essentials

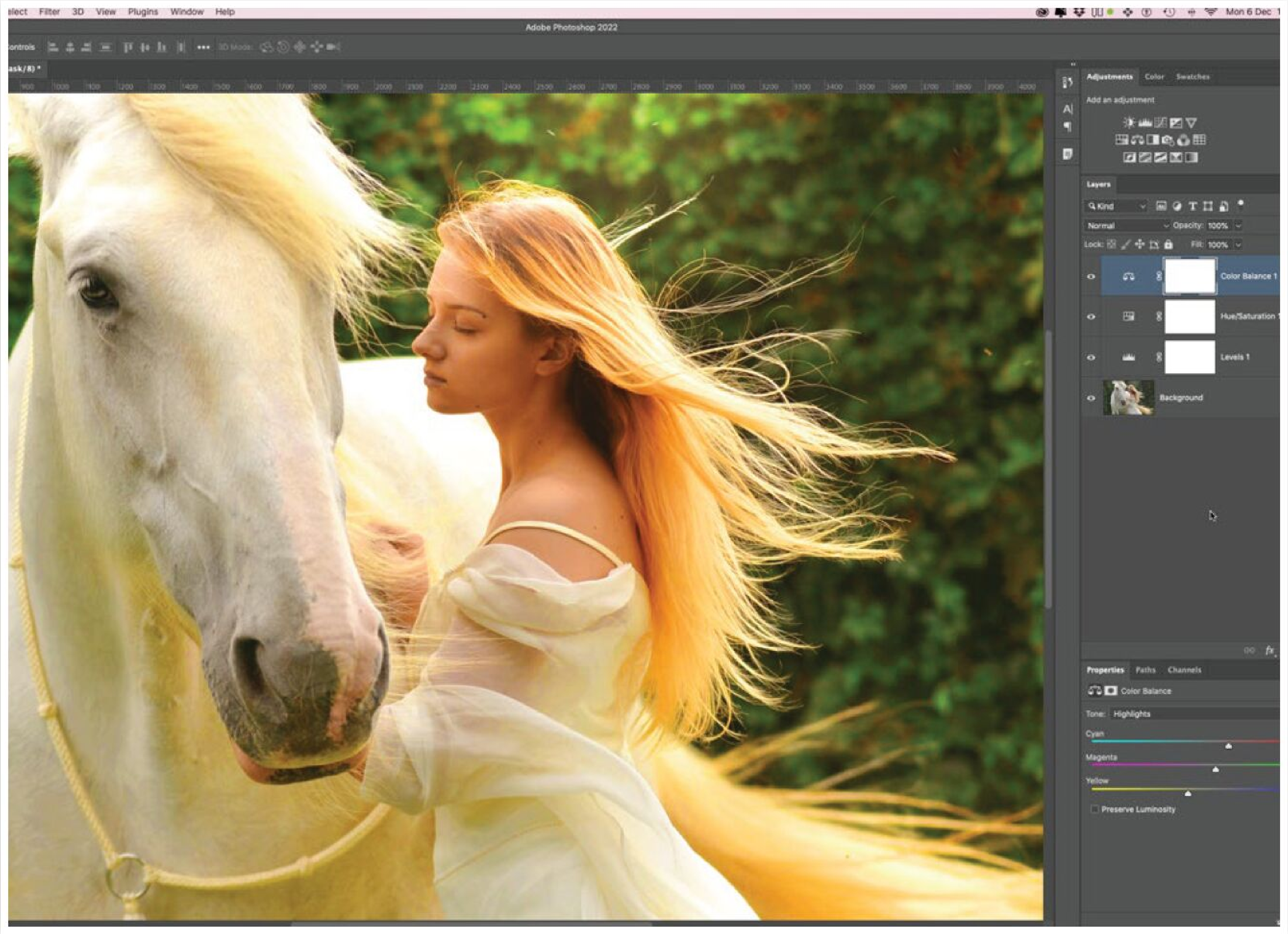
We hope that as you have progressed through this manual, you have become more familiar with how Photoshop works and are ready to take on a few more features that are key to successful image editing. This is the point we delve even deeper into the toolbox and learn more about non-destructive editing, making selections and cloning.

Non-destructive Enhancement Part 1

A great way to edit your images without damaging them

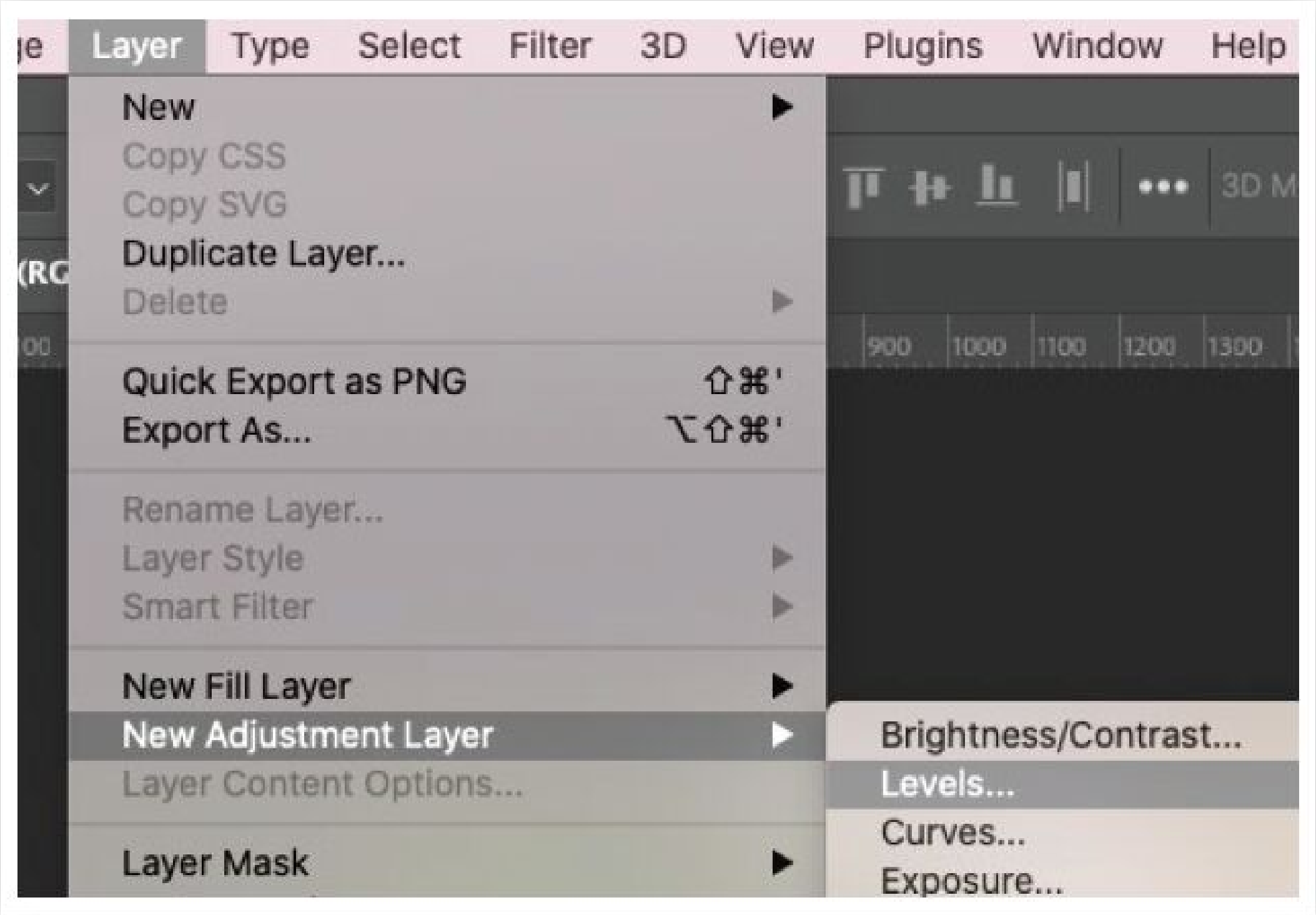
Although there are many editing options in the Image > Adjustment menu, they all have one thing in common. When you apply them to an image the effect they have is destructive, because they discard information from the original image. For example, if you apply Curves, then Hue/Saturation, then add a Photo Filter effect, that's three operations that have discarded information, each one degrading your image quality. If you apply an operation repeatedly, such as multiple Curves corrections, you'll actually be able to see the degradation. The only way to undo the damage done by these modifications is to revert to an earlier version by using undo or the History palette, but that also undoes all your subsequent editing as well. This degradation is much worse with 8-bit than with 16-bit images, since there's less information to start with.


Solid Color...
Gradient...
Pattern...
Brightness/Contrast...
Levels...
Curves...
Exposure...
Vibrance...
Hue/Saturation...
Color Balance...
Black & White...
Photo Filter...
Channel Mixer...
Color Lookup...
Invert
Posterize...
Threshold...
Gradient Map


Adobe Photoshop 2022
Color Balance 1
Hue/Saturation 1
Levels 1
Background

It's impossible to avoid this image degradation altogether, but by using Adjustment Layers we can reduce it as much as possible. Adjustment Layers sit above the pixel layer in the stack and their effects are applied in real time as the layers are displayed. That way if you change your mind about an effect, or wish to change it after it has been applied, your alteration doesn't have any further effect on the layer below it and the image degradation isn't applied until the layers are merged when flattening the image.

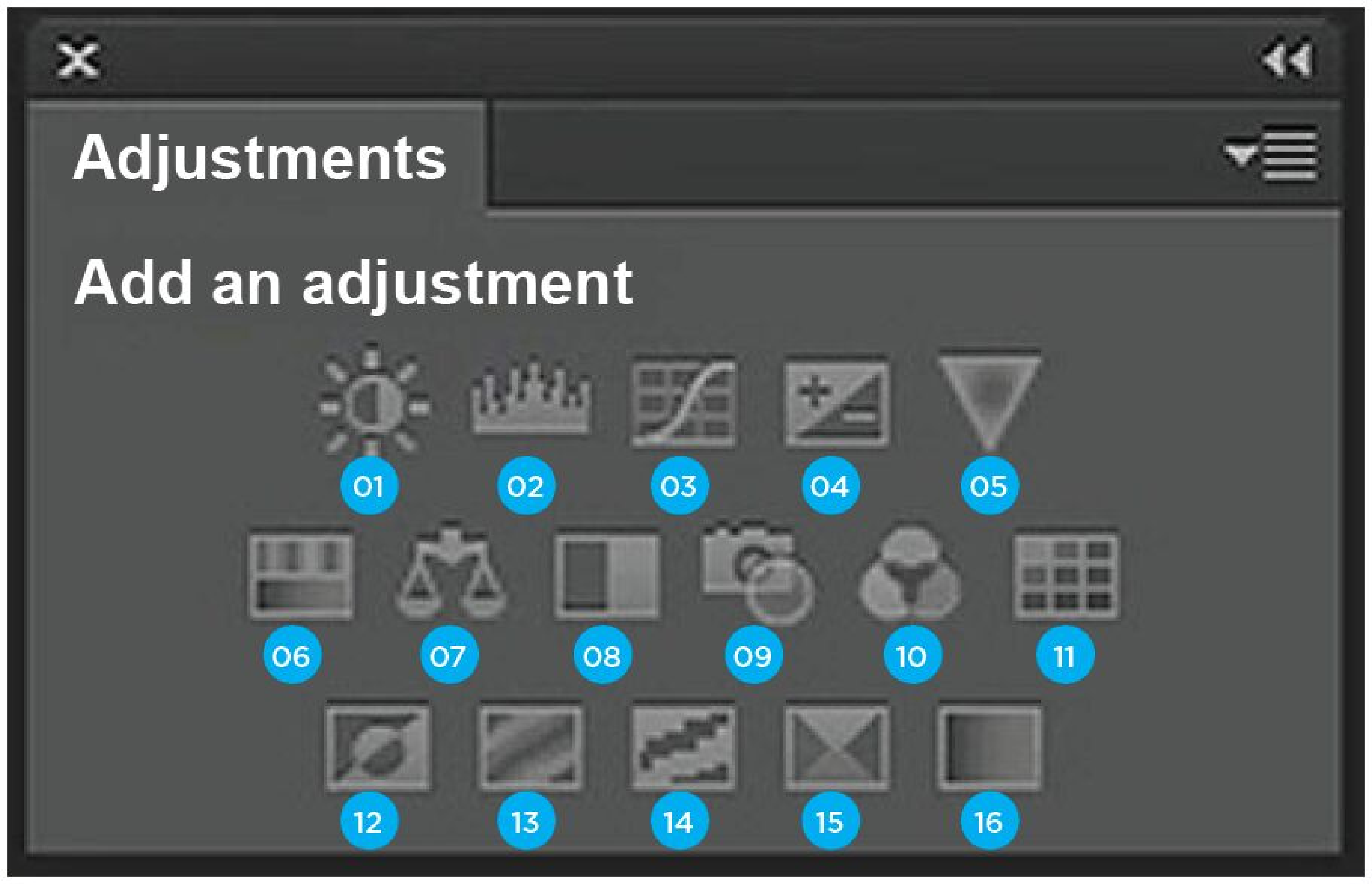
You can apply Adjustment Layers in several ways. First, you'll find a list of available layers in the Layer > New Adjustment Layer menu. Second, if you have the Adjustments palette open (it's open in the default interface workspace) you can click on the button for the layer you want to apply. Third, you can click on the middle button at the bottom of the Layer Palette. All of these offer exactly the same list of options and produce the same results.

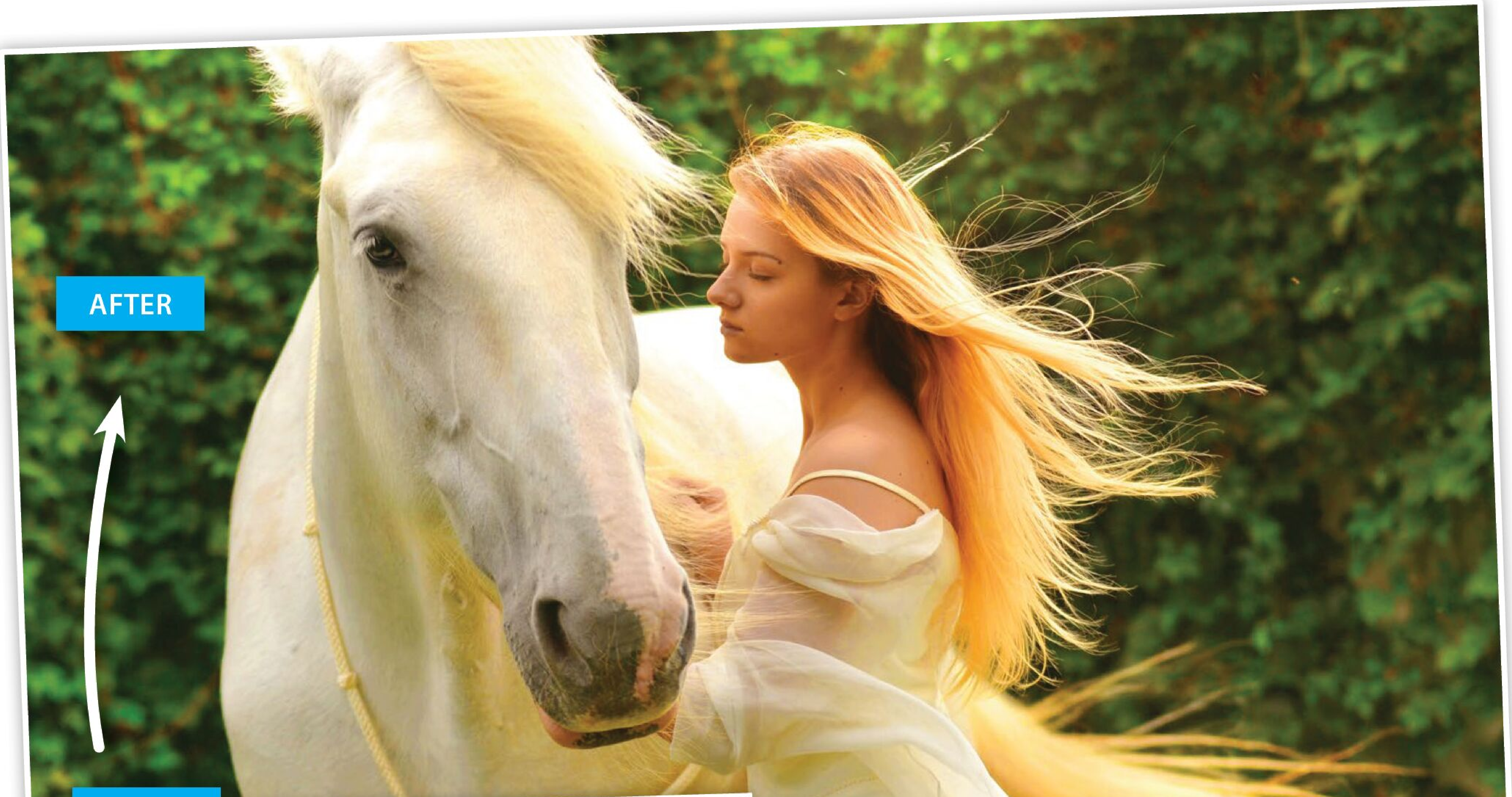

Layer
Type
Select
Filter
3D
View
Plugins
Window
Help
New
Copy CSS
Copy SVG
Duplicate Layer...
Delete
Quick Export as PNG ⇧⌘'
Export As... ⌥⇧⌘'
Rename Layer...
Layer Style
Smart Filter
New Fill Layer
New Adjustment Layer
Layer Content Options...
Layer Mask
Brightness/Contrast...
Levels...
Curves...
Exposure...

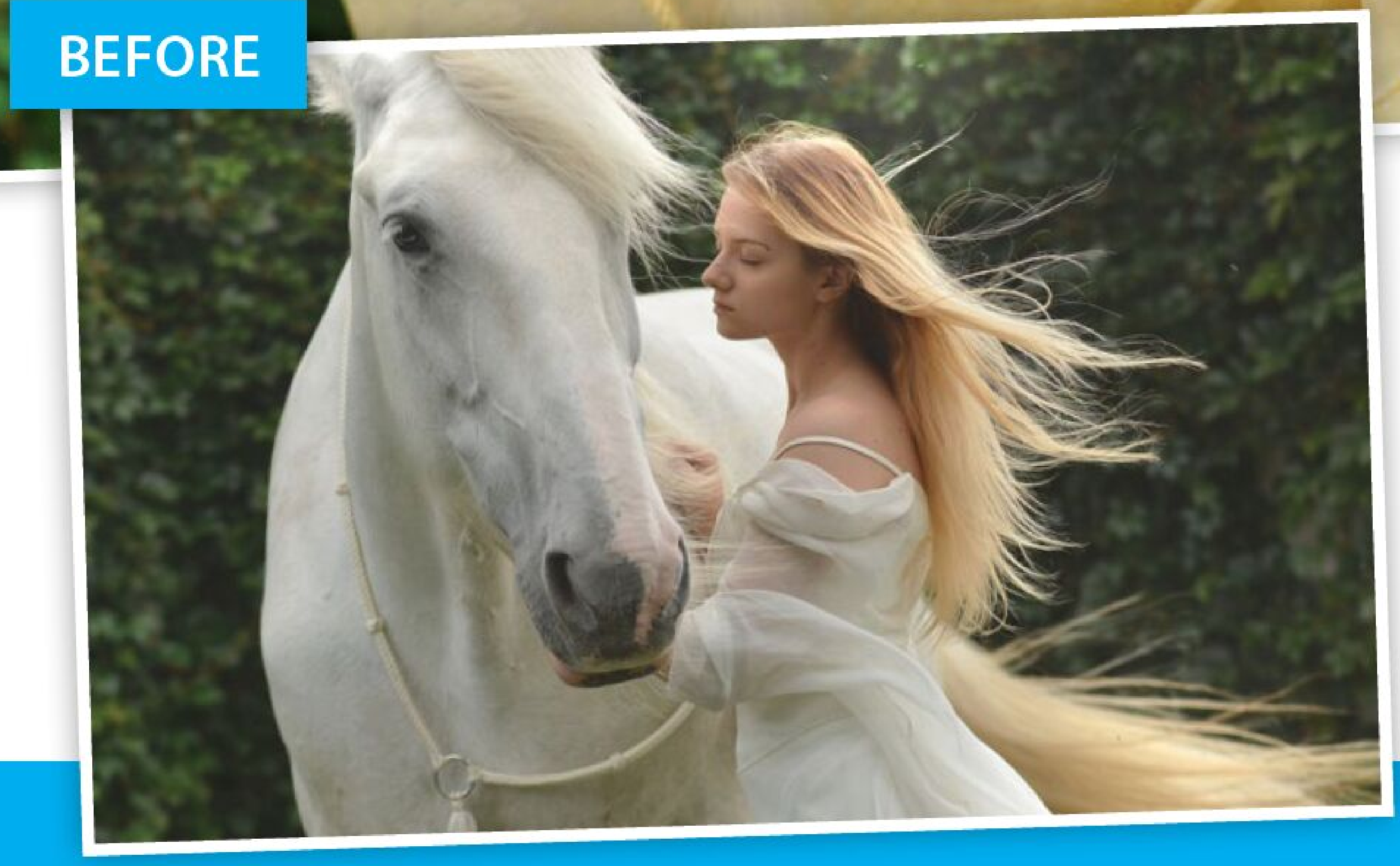
The Adjustment Layer Palette

Click on any of these buttons to instantly create a new adjustment layer.

01	**Brightness/Contrast**	Edit image tonal range.
02	**Levels**	Adjust colour and tonal range.
03	**Curves**	Adjust points through the tonal range.
04	**Exposure**	Adjust an images' exposure range.
05	**Vibrance**	Enhance less saturated colours first.
06	**Hue/Saturation**	Alter Hue, Saturation and Lightness.
07	**Colour Balance**	Add colour to shadows and highlights.
08	**Black and White**	Convert to monotone or greyscale.
09	**Photo Filter**	Add custom colour cast to images.
10	**Channel Mixer**	Create tinted or greyscale images.
11	**Colour Lookup**	Add preset colour effects to images.
12	**Invert**	Inverts image colours like a negative.
13	**Posterize**	Adjust the number of tonal levels.
14	**Threshold**	Convert to black and white bitmap.
15	**Selective Colour**	Alter individual primary colours.
16	**Gradient Map**	Maps an image to a custom gradient fill.







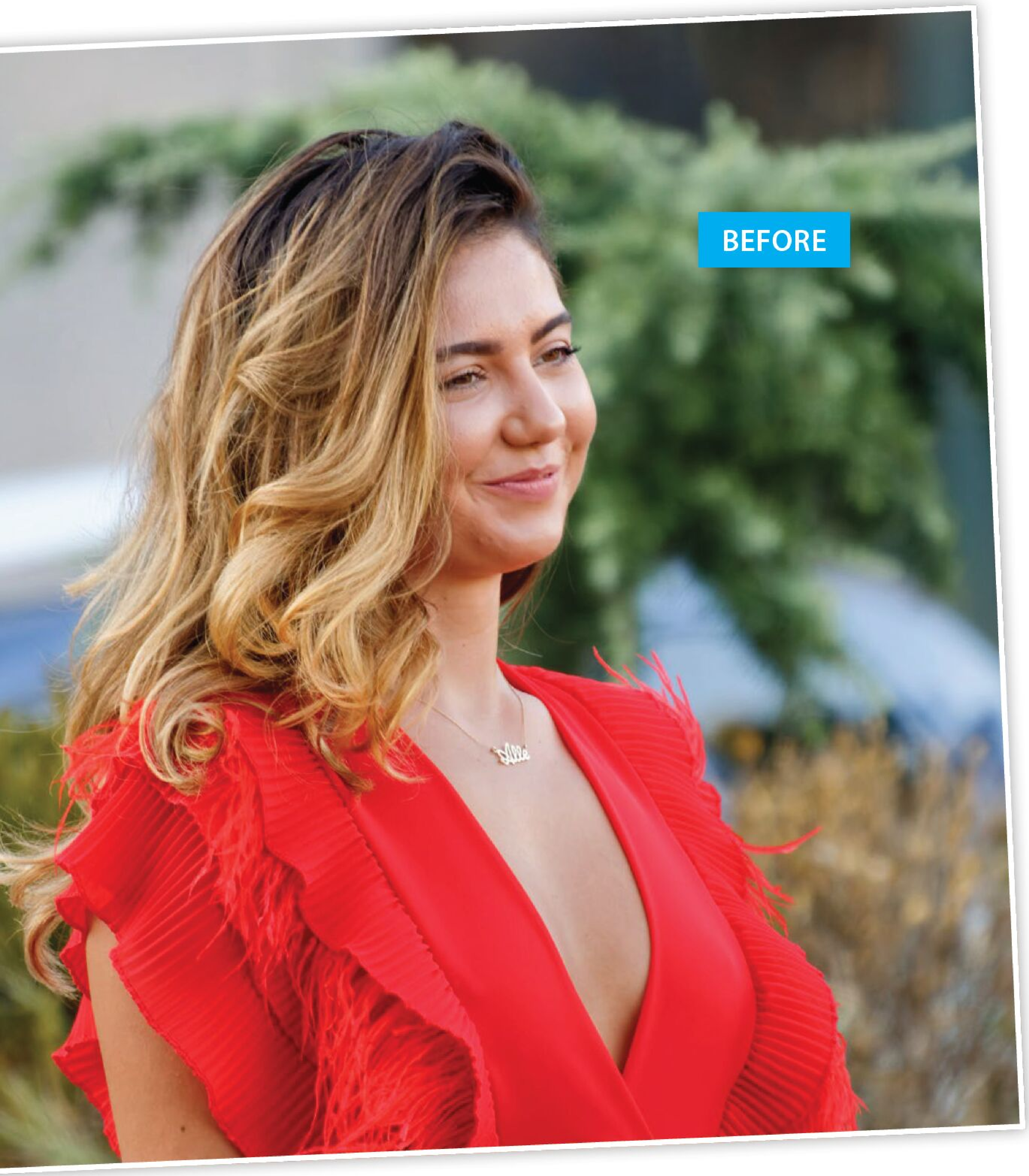
Before and After

This photo of a girl and her horse was taken on an intermediate level digital camera on a fairly overcast day. The subject was photographed against a dark green foliage and overall, the image lacks any contrast. By applying Levels, Saturation and Color Balance adjustments to the image, the colours have been saturated and contrast enhanced to bring back some life and detail to the image.

Non-destructive Enhancement Part 2

Add effects non-destructively with Layer Masks

While a Quick Mask function is an easy way to selectively edit your pictures, the more traditional method is to use Layer Masks. The advantage to this method is that it is non-destructive, so if you don't like the results you can just go back and start again. It is also repeatable, because you can use the same mask for multiple effects, saving you time and effort. For this quick tutorial we'll use a Layer Mask to apply a selective monochrome or colour extraction effect. We'll start with this bright image of a lady in a red dress. The red tones will remain in colour while the rest of the picture will be changed to black and white.



01 To start with, right-click on the thumbnail of the photo in the layer palette and select Duplicate Layer from the menu. Alternatively click and drag the layer thumbnail in the palette onto the New Layer button at the bottom of the palette, which will also duplicate the layer.

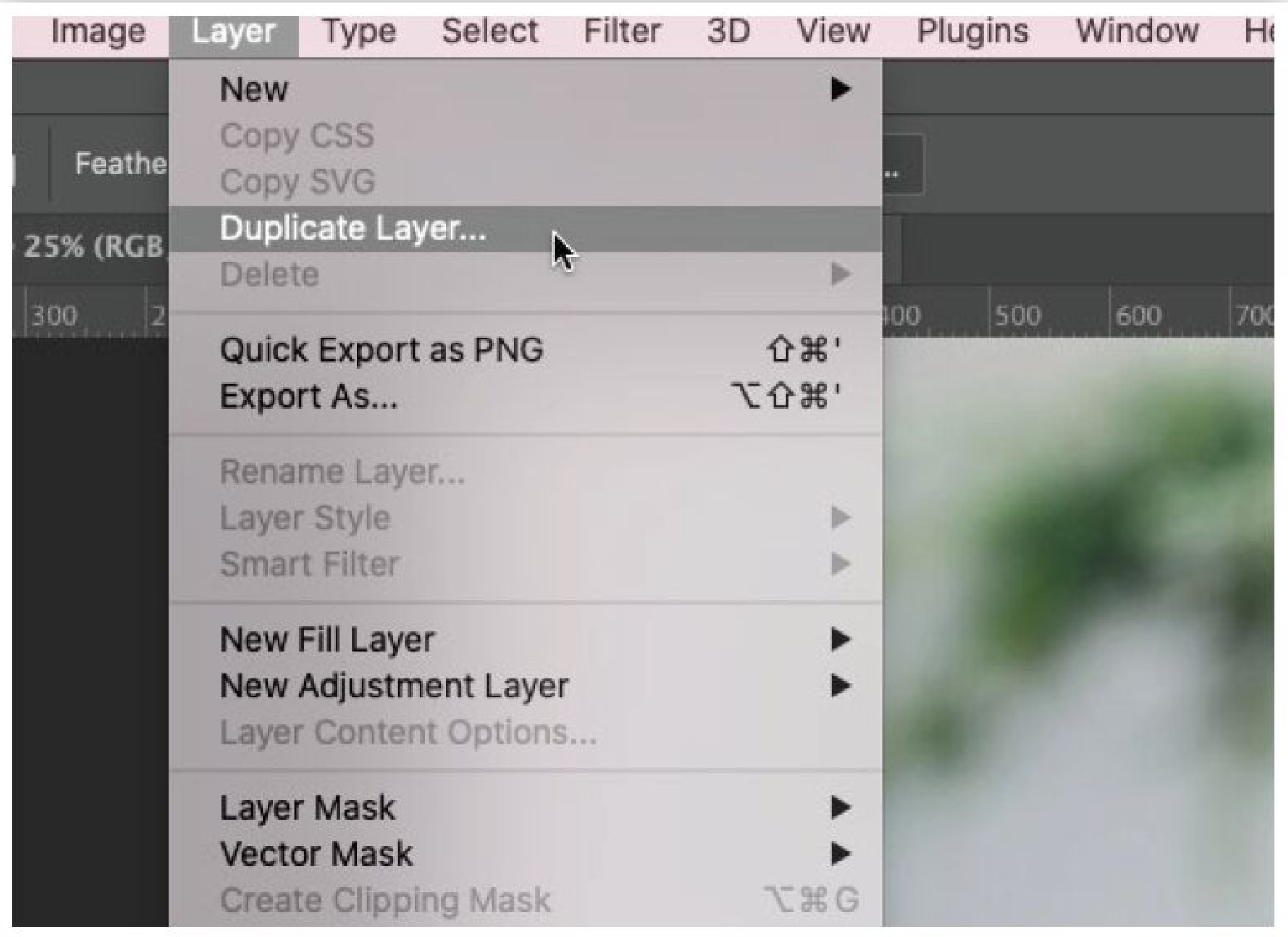
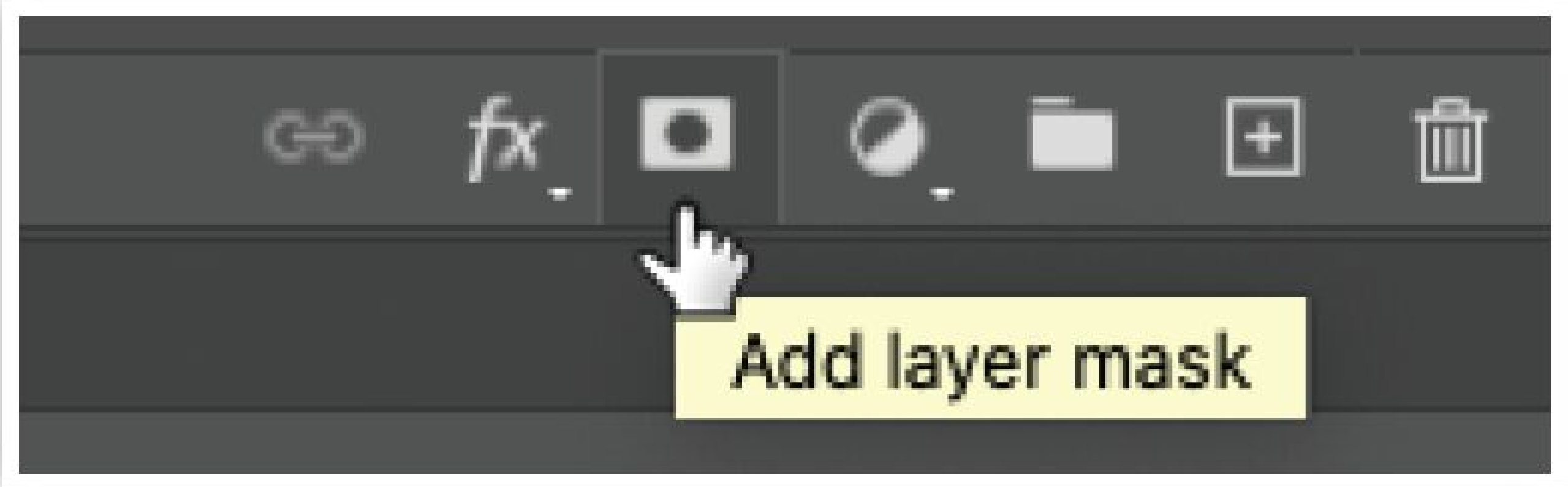
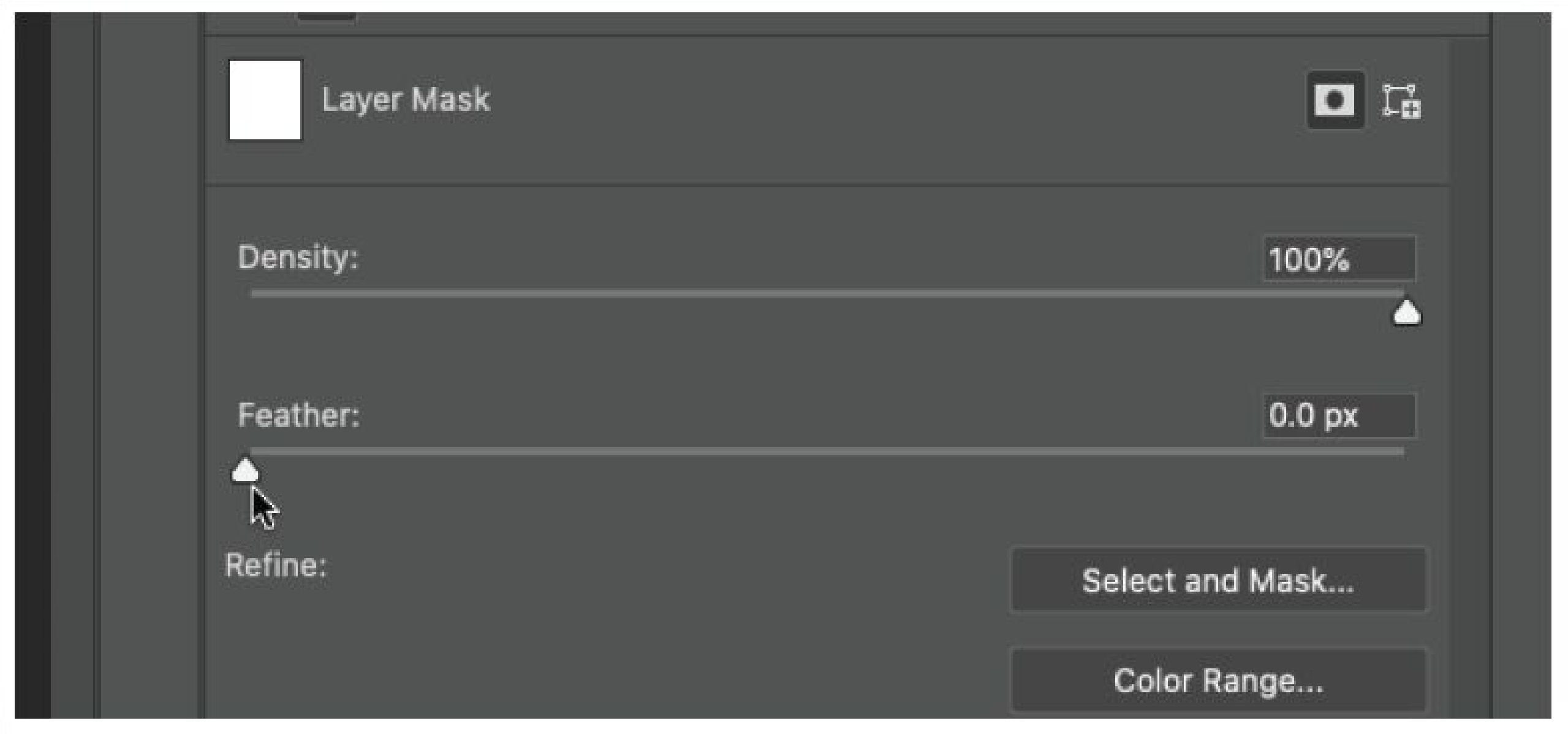


Image
Layer
Type
Select
Filter
3D
View
Plugins
Window
New
Copy CSS
Copy SVG
Duplicate Layer...
Delete
Quick Export as PNG ⇧⌘'
Export As... ⌥⇧⌘'
Rename Layer...
Layer Style
Smart Filter
New Fill Layer
New Adjustment Layer
Layer Content Options...
Layer Mask
Vector Mask
Create Clipping Mask ⌥⌘G

02 Next, activate the new layer by clicking on it in the palette and then click on the Add Layer Mask button at the bottom of the palette.


Add layer mask

03 A white square will appear in the layer palette representing the new mask. Double-click on this and the Layer Mask palette will fly-out. This palette lets you configure the mask in a variety of ways.

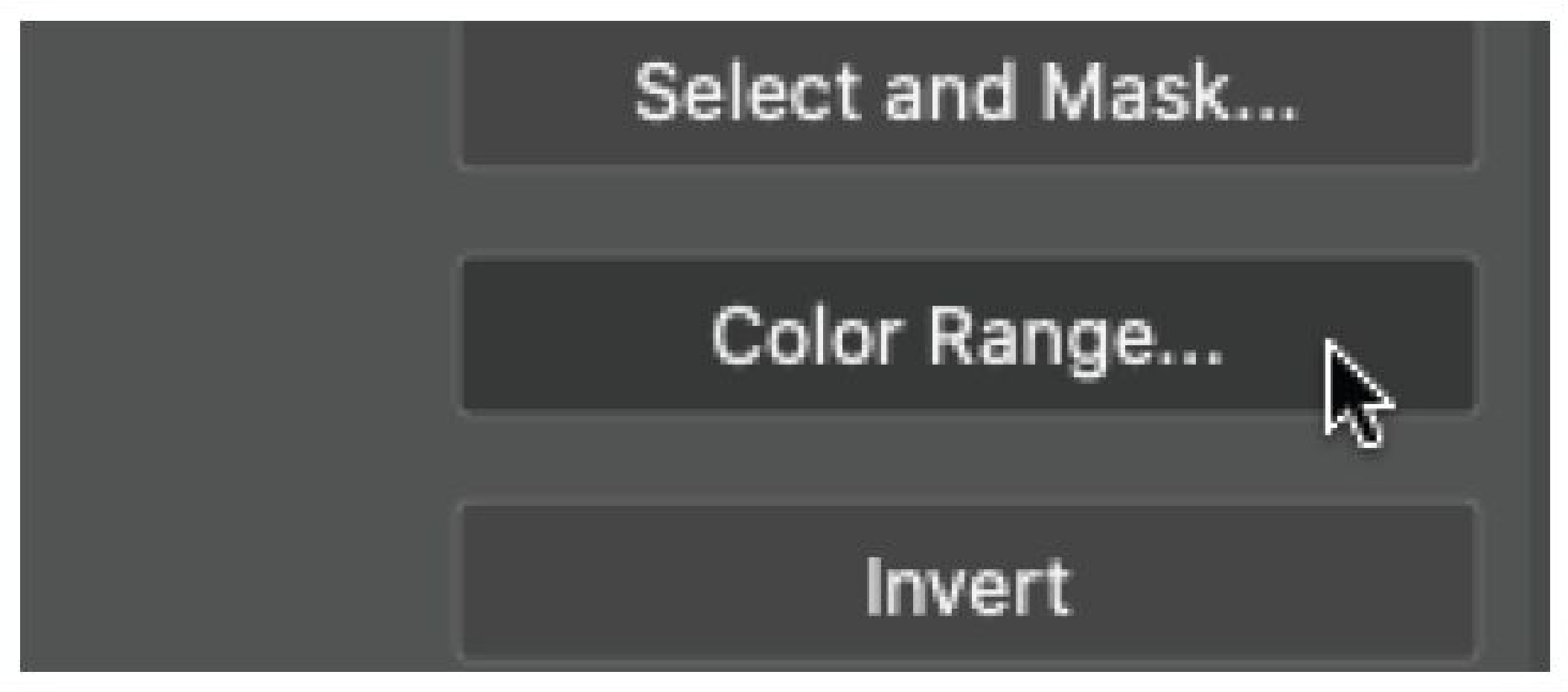

Layer Mask

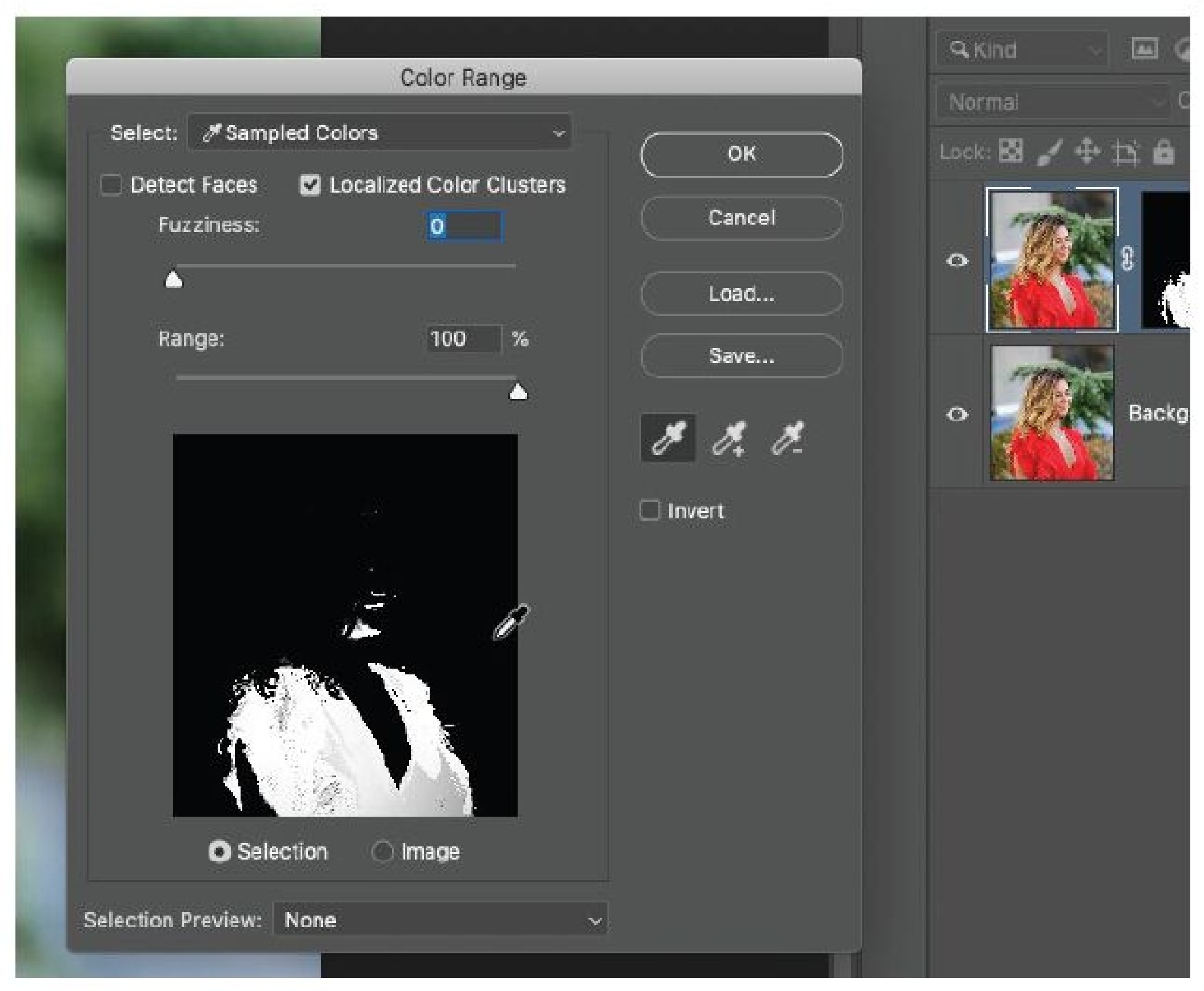
Density: 100%

Feather: 0.0 px

Refine:
Select and Mask...
Color Range...

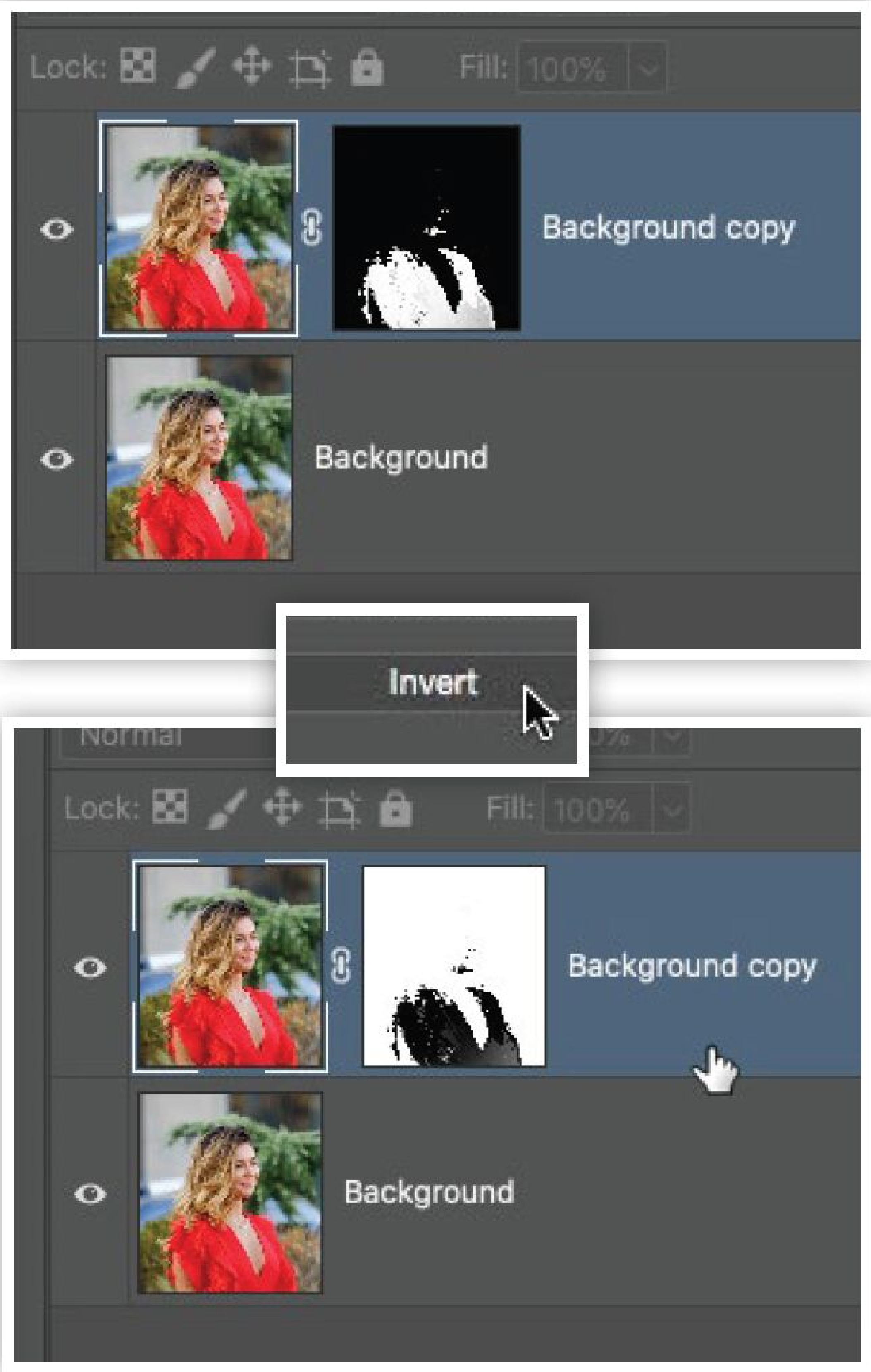
04 Click on the Color Range button and you'll see a new window appear with a colour range picker and the cursor will change to an eyedropper tool. Click on the red material of the dress and adjust the sliders so that as much of the colour as possible is selected, but none of the background. Click OK when you're happy.


Select and Mask...
Color Range...
Invert


Color Range
OK
Cancel
Load...
Save...
Invert
Selection
Image
Kind
Normal
Lock:
Backg

Select: Sampled Colors
☐ Detect Faces ☑ Localized Color Clusters
Fuzziness: 0
Range: 100 %
Selection Preview: None

05 Now we've got a mask that covers the shape of the dress but what we need is a mask that leaves the chosen colour, while covering everything else, so click on the Invert button that swaps the mask and the background. This effectively creates a hole in the layer through which the background layer will be visible.


Lock:
Fill: 100%
Background copy
Background
Invert
Normal
Lock:
Fill: 100%
Background copy
Background

06 Next we can apply the effect to the top layer. For this one we'll use the Black and White menu option, since it's a quick and easy effect. You'll find it in the Image > Adjustments menu.

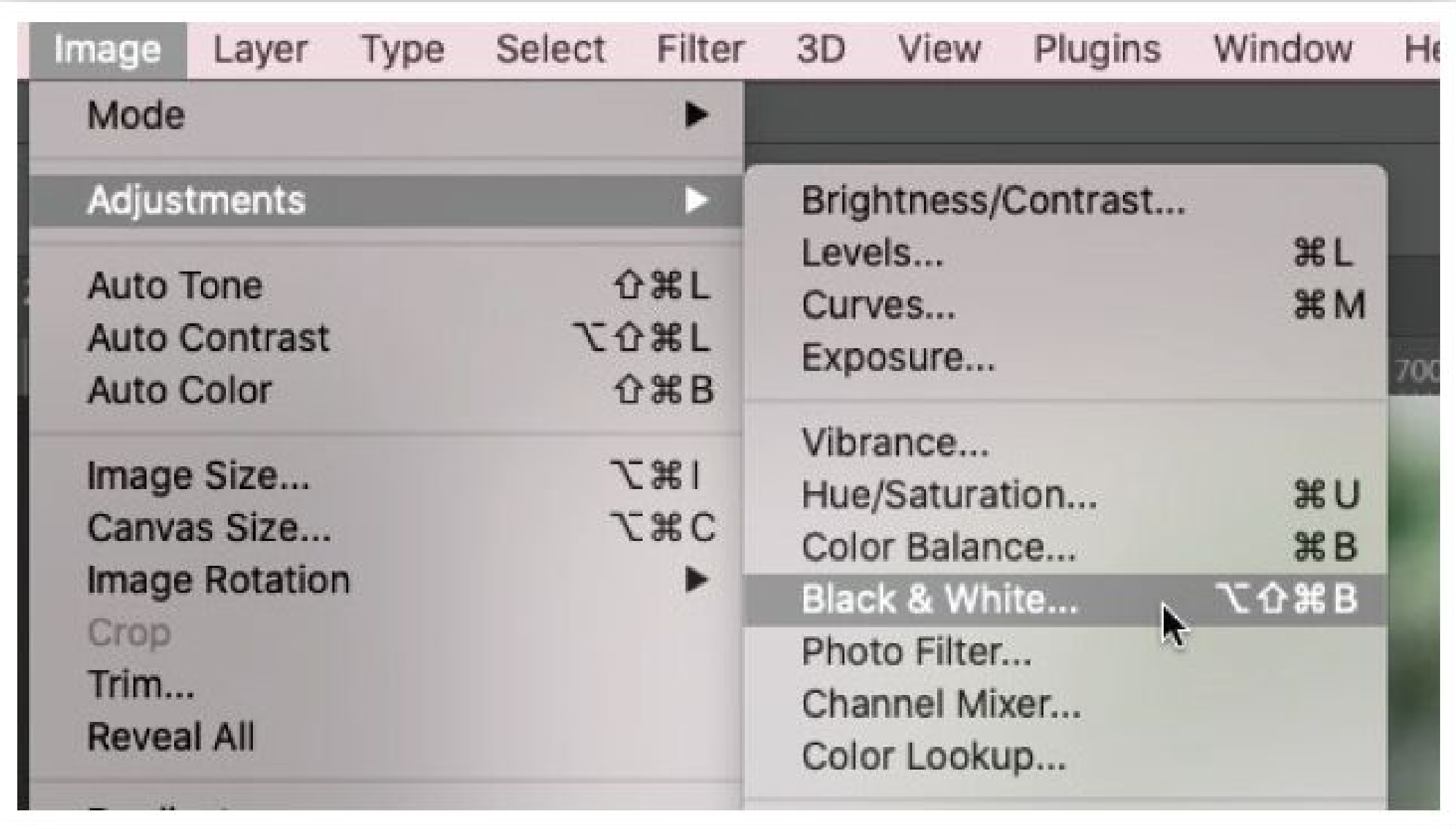
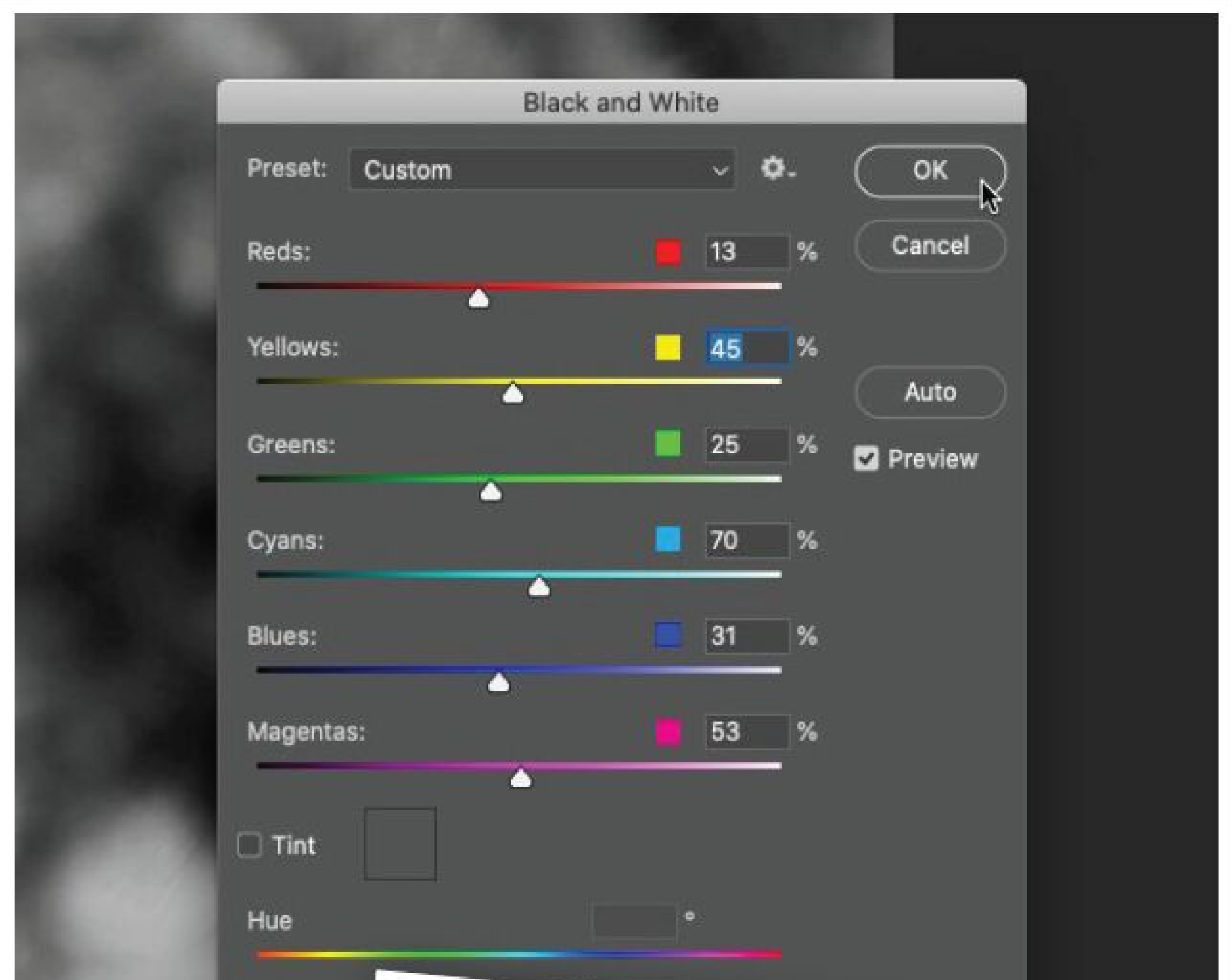


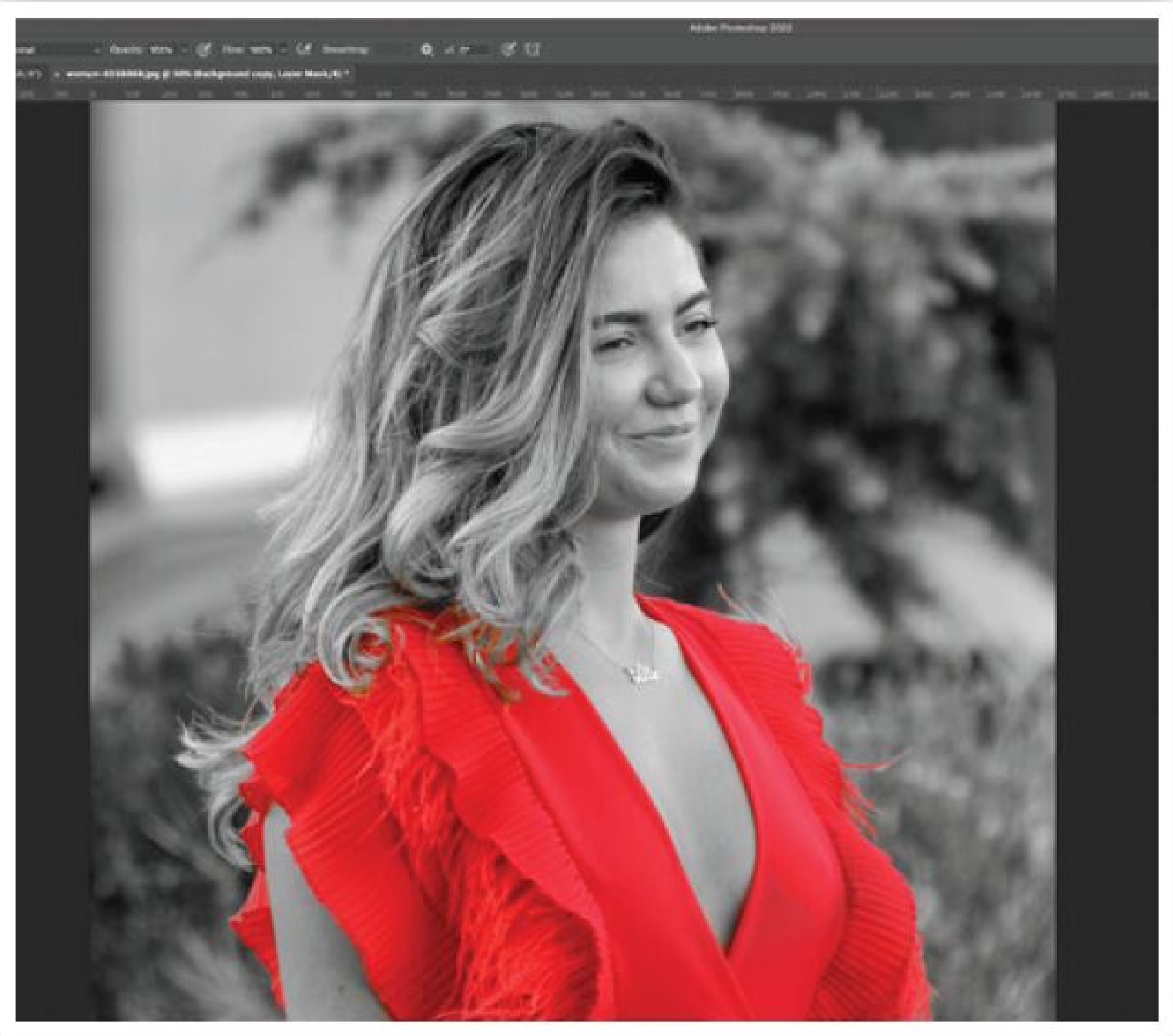
Image
Layer
Type
Select
Filter
3D
View
Plugins
Window
Mode
Adjustments
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation
Crop
Trim...
Reveal All
Brightness/Contrast...
Levels... ⌘L
Curves... ⌘M
Exposure...
Vibrance...
Hue/Saturation... ⌘U
Color Balance... ⌘B
Black & White... ⌥⇧⌘B
Photo Filter...
Channel Mixer...
Color Lookup...

07 You can adjust the parameters of the Black and White effect with the sliders on the window that appears. The results are a matter of personal taste, so adjust the parameters until you're happy.


Black and White
OK
Cancel
Auto
Hue
Saturation

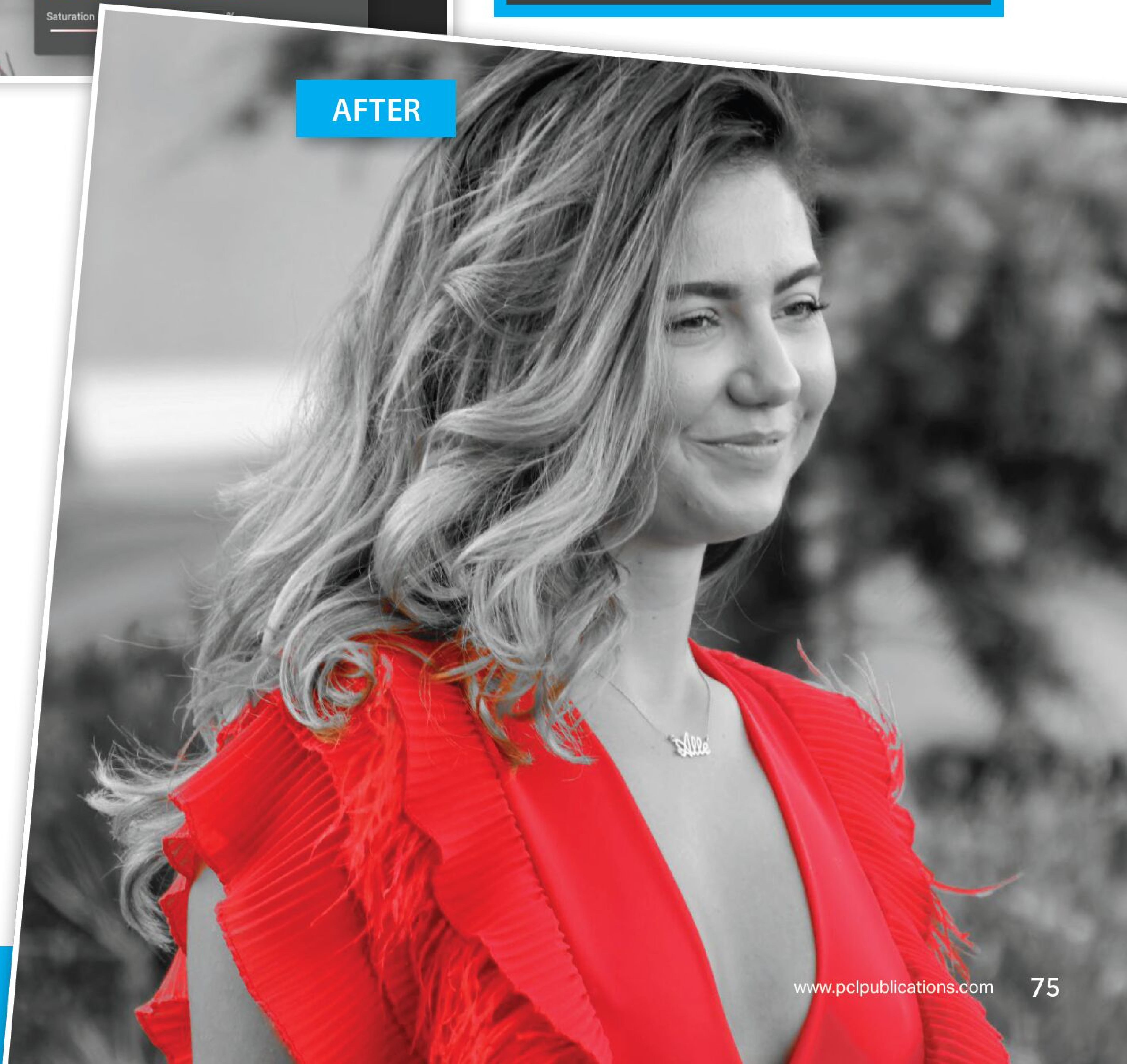
Preset: Custom
Reds: 13 %
Yellows: 45 %
Greens: 25 %
Cyans: 70 %
Blues: 31 %
Magentas: 53 %
☐ Tint
☑ Preview

08 The Layer Mask can be used to produce any kind of selective effect like this and the great part of it is that the original image is still intact in the background layer, so if you're unhappy with the finished result you can just delete the effect layer and start again. However as you can see, with a little cleaning up of the layer mask, the effect is working well.



USEFUL TIP

Always remember that layer masks do not erase any of a layer's detail, it just makes certain details invisible without deleting them. This is referred to as non-destructive image editing.



Brushes, Pencil and Eraser

Photoshop has many tools to help you create images as well as edit them

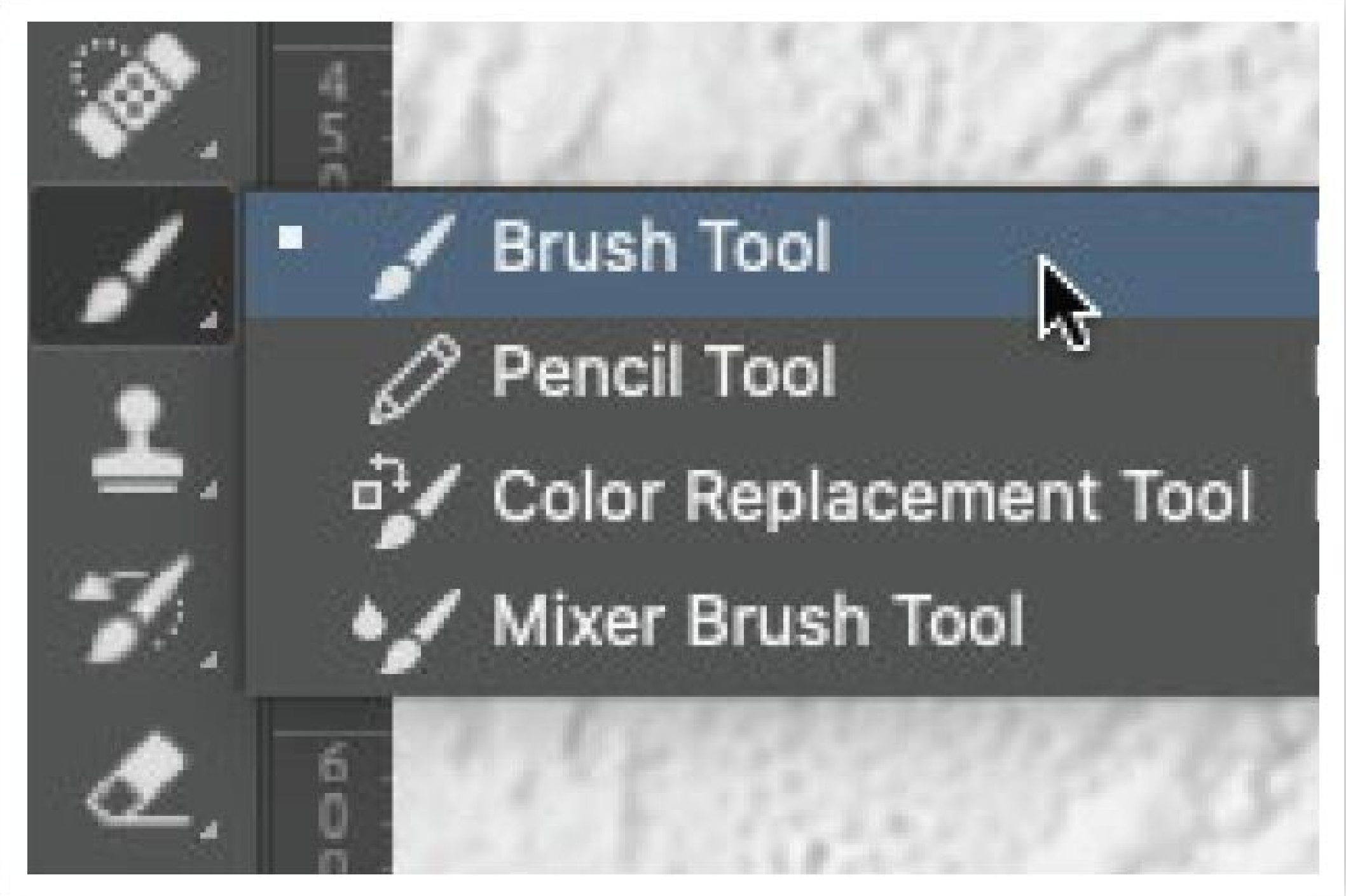
Although it is primarily designed and best known as an image editing program, Photoshop also offers a range of versatile tools, allowing you to create original artwork as well as adapting existing images. The brushes, pencils and eraser are designed to behave as much like their real life counterparts as possible, to make using them an intuitive process. If you have a graphics tablet and a pen, this helps even more.

The Brush Tool

The most useful drawing implement is the Brush (keyboard shortcut B), which is a multi-purpose tool that can emulate almost any type of drawing tool imaginable, be it a fine pencil, a felt-tip marker pen, a soft-bristle brush, an airbrush, or anything in between. The Brush tool has received a major upgrade for version CS6 and now has more options and more presets than ever before, giving you unparalleled versatility for creating your own artistic Photoshop masterpieces.

You select the Brush tool by clicking on its icon in the tool palette, but to get the most out of it you need to open the new Brush palette by clicking on the little folder-shaped icon in the options bar.

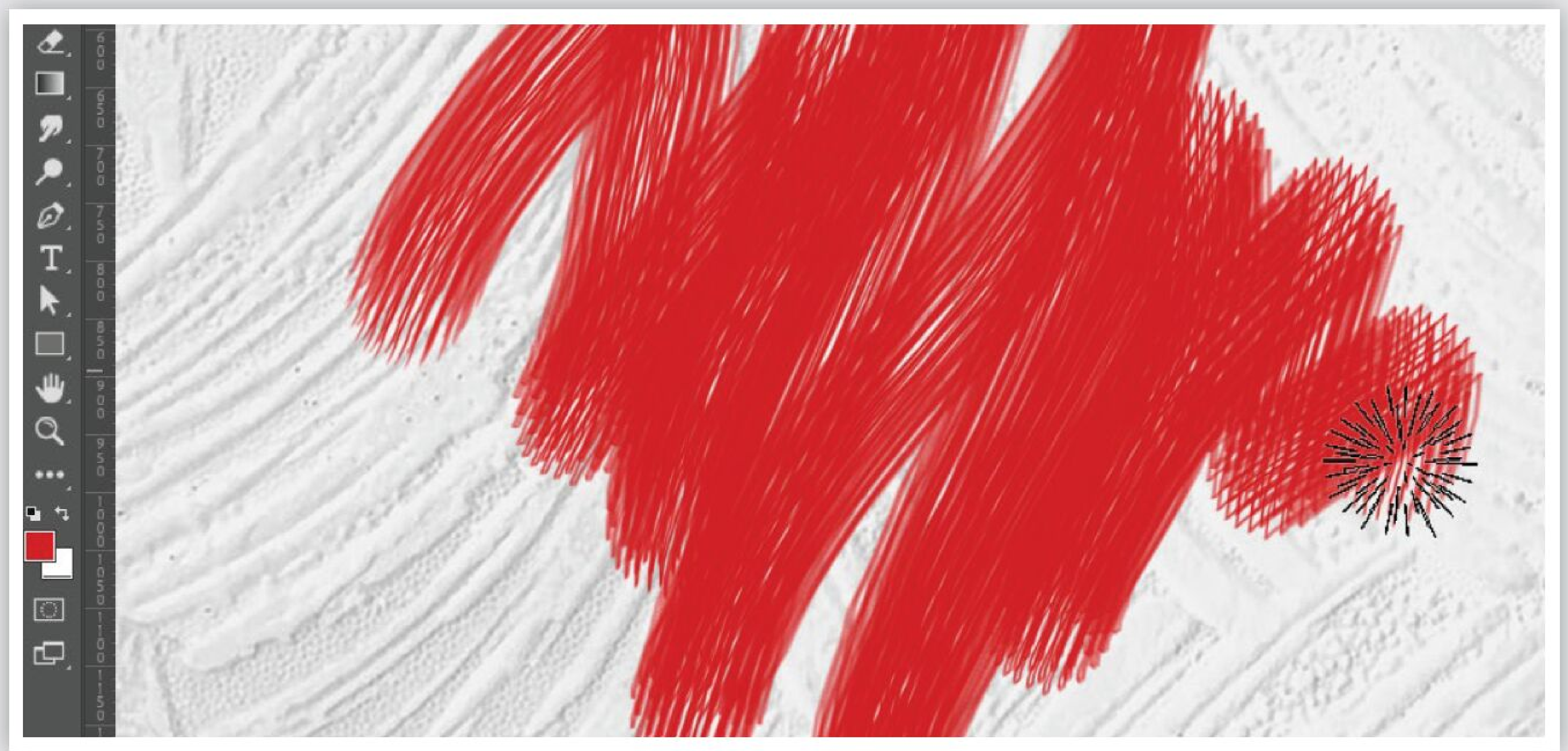
When you take a look at the new Brush palette you'll be blown away by just how customisable it is. You can adjust the shape of the brush tip, the density, length, thickness, stiffness and angle of the brush bristles and adjust or disable brush spacing. As well as



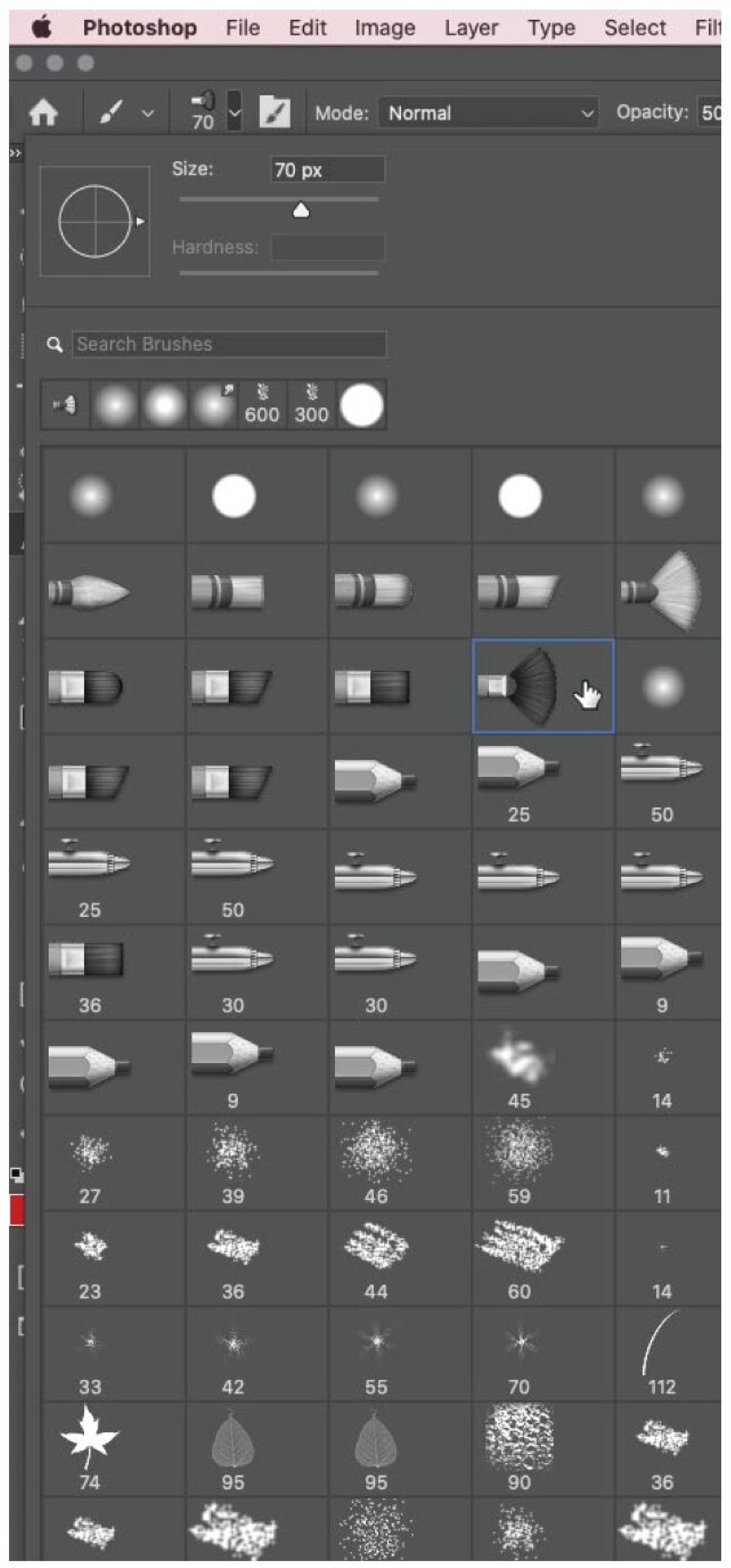
The Pencil Tool

The Pencil tool used to be a separate item from the Brush tool, but with radical expansion of the Brush in Photoshop to include simulations of numerous types of pencil, the Pencil tool itself is now just a variation of the Brush tool and uses the same options palette. It's not without its uses though.

The Pencil can be used as a secondary brush, which can save time swapping between pre-sets and can also be used to apply a stroke to work paths. You can press Shift + B to make it appear. By default it uses the 1 pixel brush size. The pencil tool is limited to hard-edged brush shapes of various sizes.

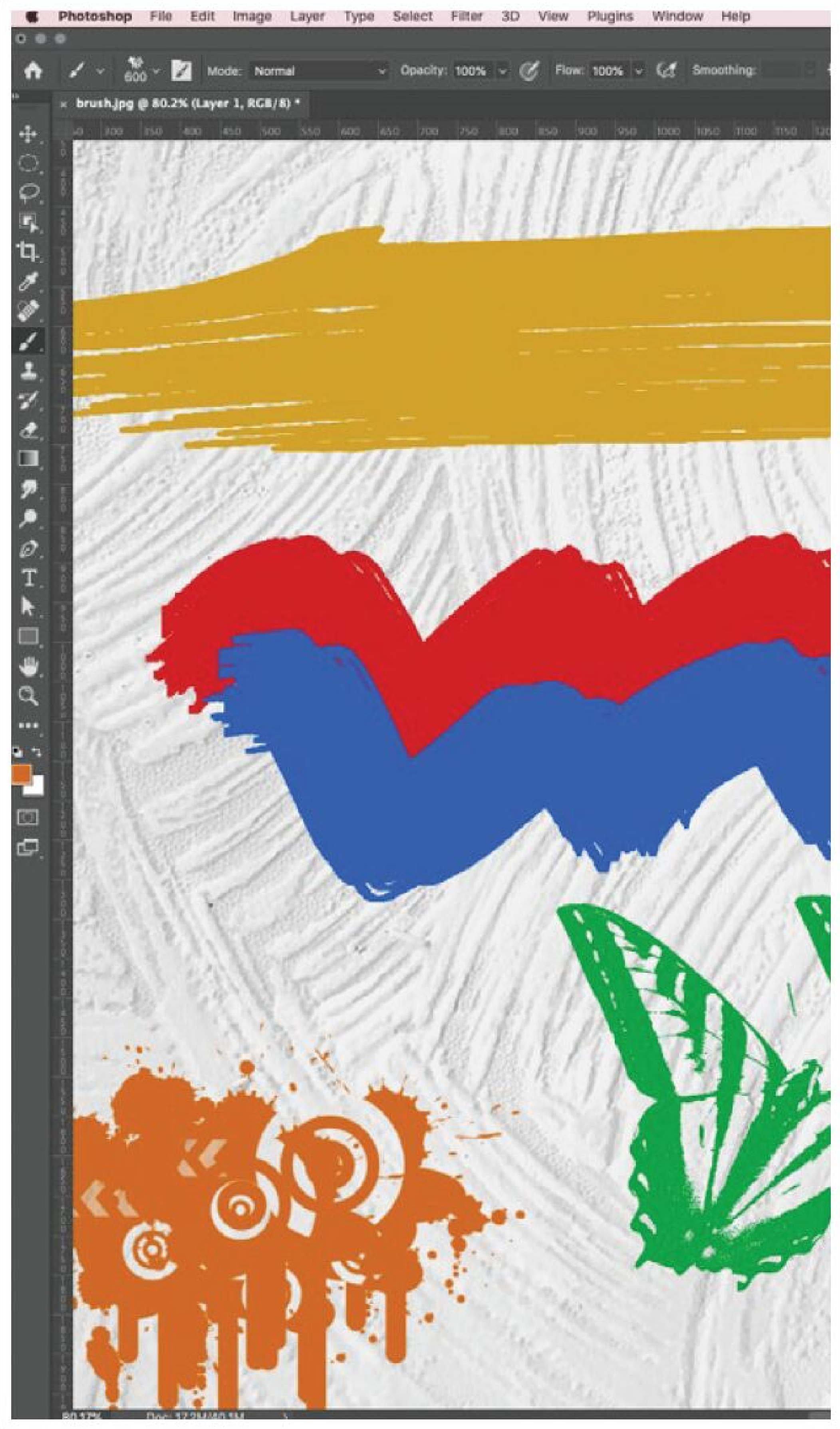


this there are many more options, allowing you to add random scattering, noise, texture, wet edge simulation, airbrush-like build-up and both shape and colour dynamics. If this degree of control is too time-consuming there are also dozens of preset brushes, a small sample of which you can see in the picture shown below.


Photoshop File Edit Image Layer Type Select
Mode: Normal
Opacity:
Size: 70 px
Hardness:
Search Brushes

There are preset brushes to simulate airbrushes, pastel crayons, big soft brushes, small stiff bristles, pencils, felt pens, sponges and even template brushes to quickly draw grass or leaves. The options and adjustments can be applied to preset brushes, so you can customise them for your own specific needs. You can even make your own brushes if you want.

As well as options for the appearance and texture of the brush, there are also options for how it interacts with the layer that you paint on. These are called Blend Modes and you can choose which one to use by clicking on the Modes button in the tool options bar.


Photoshop File Edit Image Layer Type Select Filter 3D View Plugins Window Help
Mode: Normal
Opacity: 100%
Flow: 100%
Smoothing:

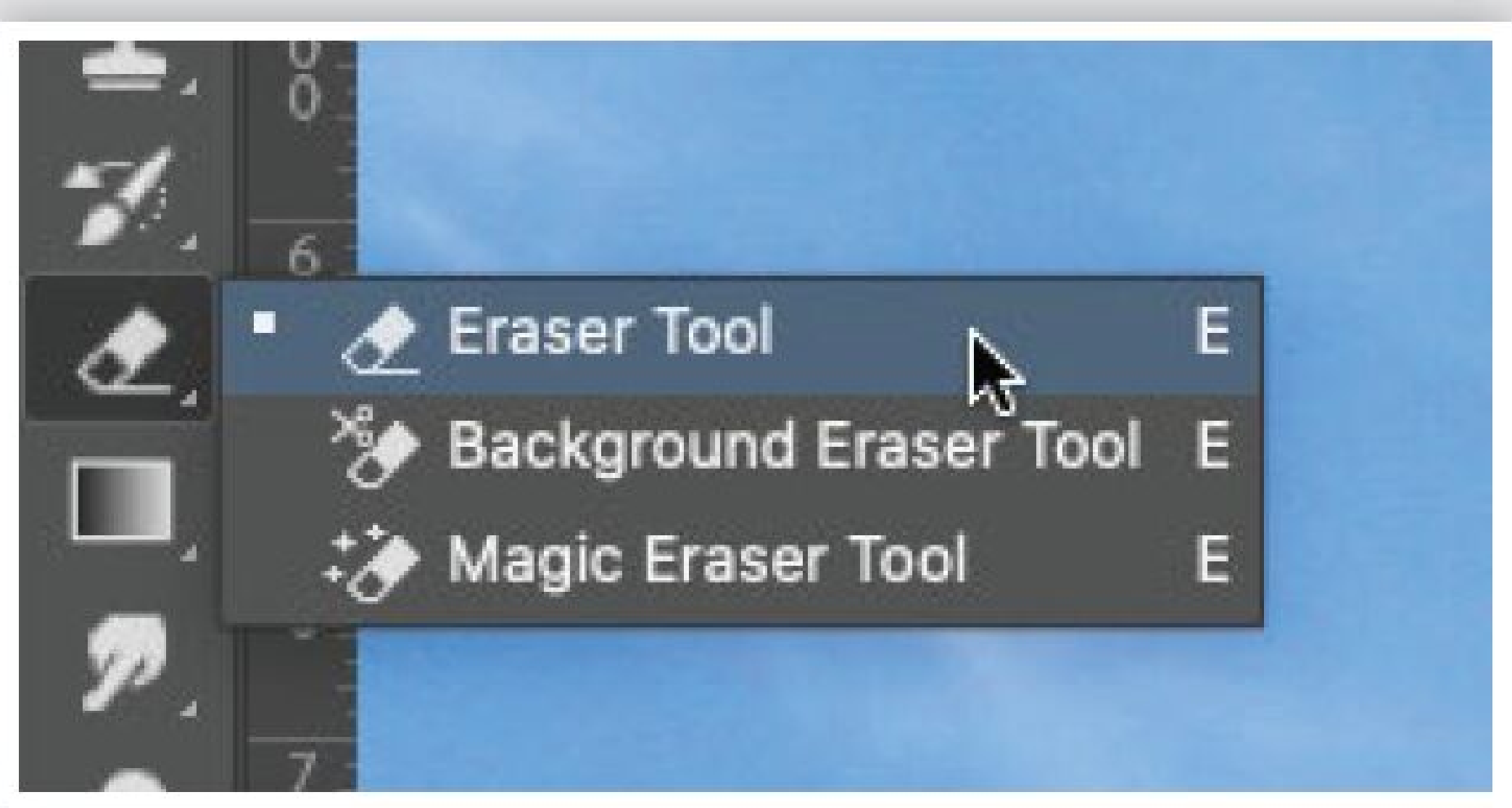
Many people may choose to use Photoshop with a pen and tablet device, such as the Wacom Intuos range shown here. The Brush tool includes options for pen tablet users, such as allowing pen pressure to control either brush size or opacity.

wacom
wacom

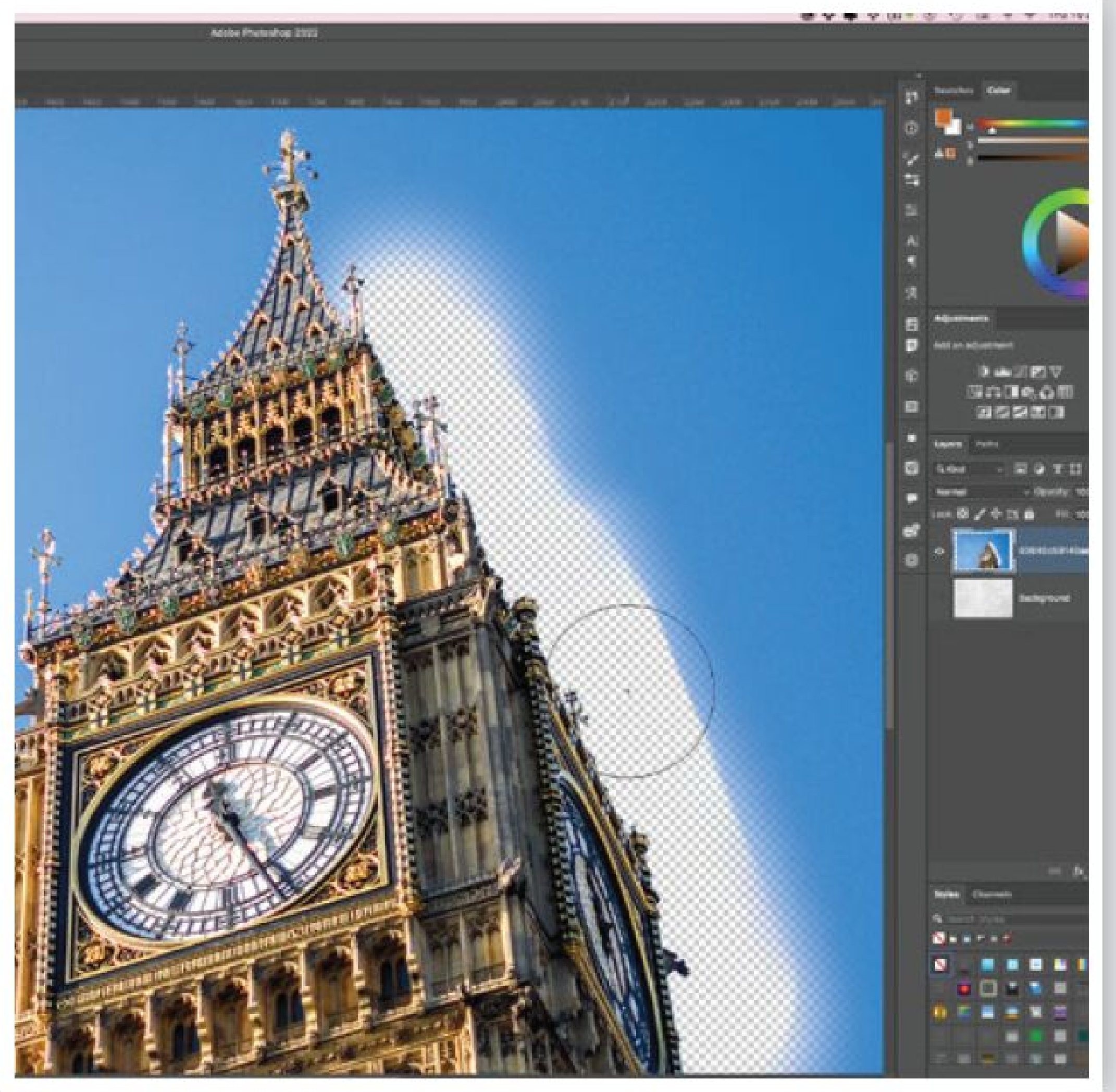
The Eraser Tool

The Eraser tool (keyboard shortcut E) is a specialised variation on the brush tool and uses the same palette options. It differs from the standard brush in that it can render pixels from a layer transparent, allowing the layer beneath to show through. If used on the background layer it paints in whatever the current background colour is set to.

As well as the Brush palette options, the Eraser also has tool options including Opacity, Flow and one unique one, Erase to History, which can be used in conjunction with the History palette to selectively undo changes in layers. The Mode options for the Eraser are Brush, Pencil or Block, which is a small square-shaped eraser of fixed size and full opacity.

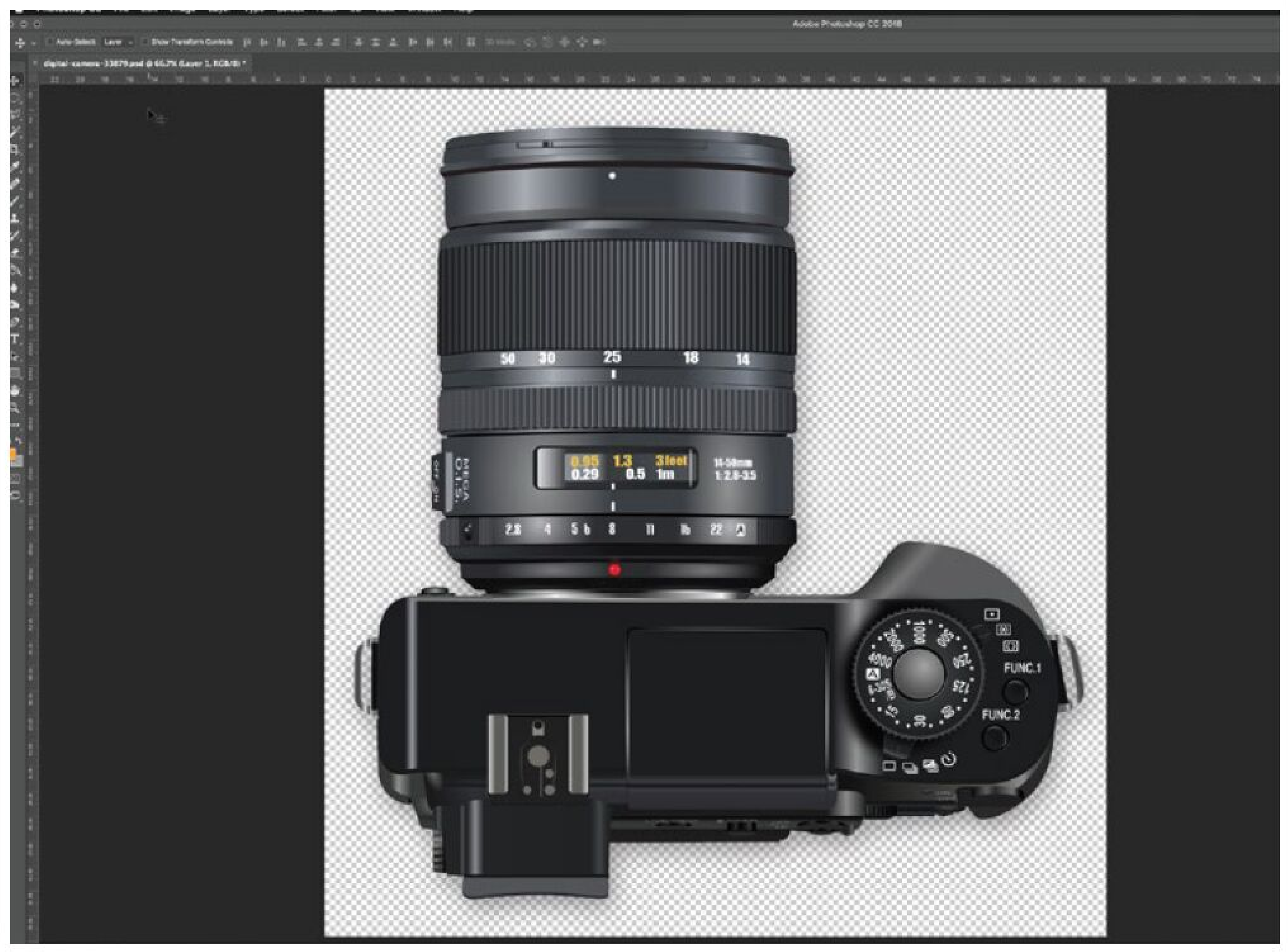

Eraser Tool E
Background Eraser Tool E
Magic Eraser Tool E

There are two other Eraser options available if you click and hold on the Eraser tool. Background Eraser can, as the name suggests, erase parts of the background, but it does this by converting the background into a layer. Magic Eraser simply combines the Magic Wand tool with the Eraser tool and selectively erases contiguous areas of colour.



Making Selections

The ability to select and modify only part of an image is fundamental to how Photoshop works



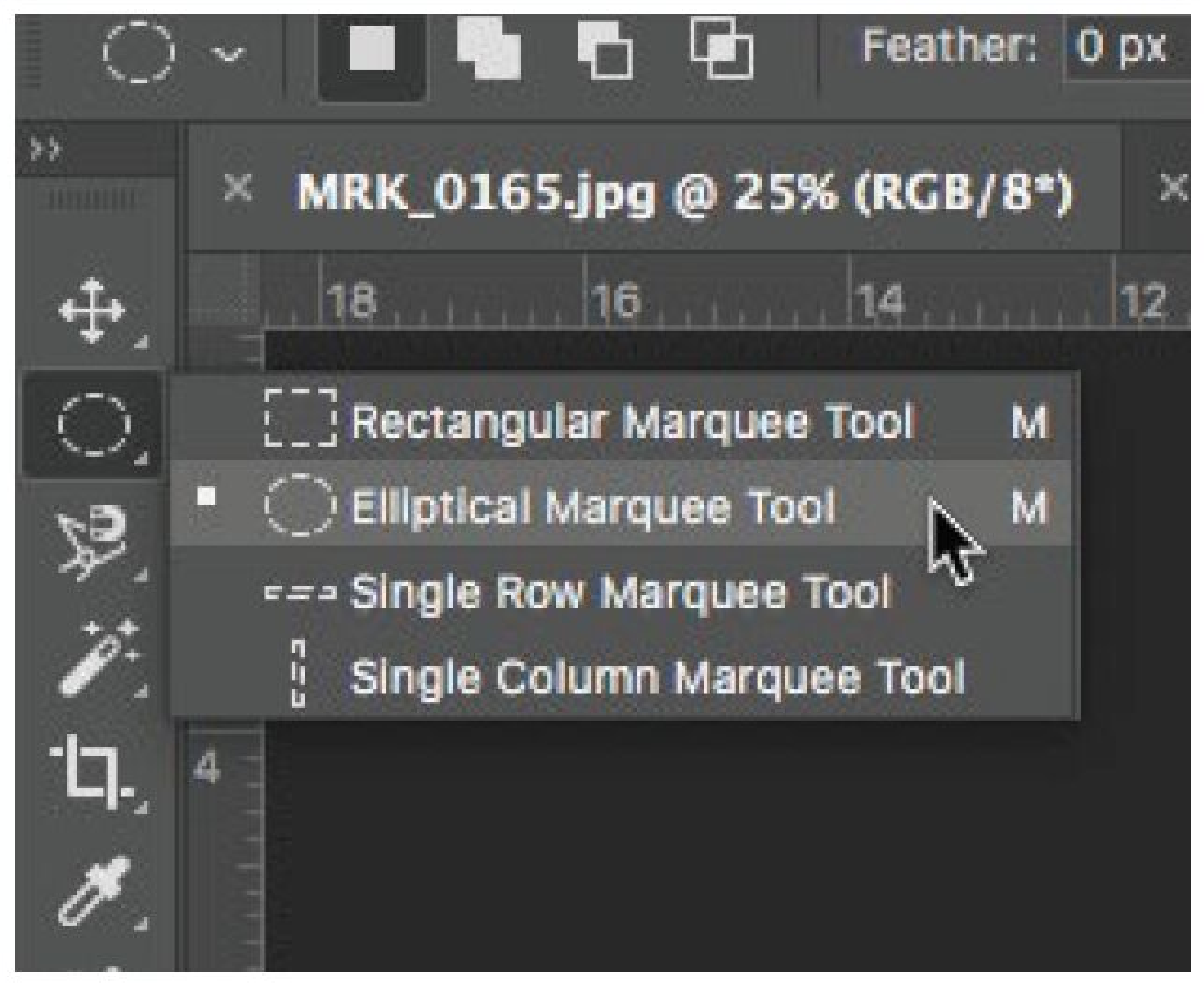
One of the most basic features of Photoshop is the ability to modify only part of an image, leaving the rest unchanged. The way that we do this is by using Selections, and there are several tools and menu operations that we can use to help us achieve this.

After the Move Tool, the next three icons on the Tool Palette are all selection tools, giving you a wide range of methods for isolating an area of your image. Some are fully manual, while others use varying degrees of automation.

The most basic selection tools are the Rectangular and Elliptical Marquee Tools. These both allow you to manually select a simple shape of any size, or of a fixed size or aspect ratio. You can select several areas, either separately or joined together, and with a hard edge or a soft feathered edge. The various Lasso Tools let you select an area of irregular shape, again with the option of a feathered edge. You can draw the area freehand, or use point-to-point lines for greater precision.

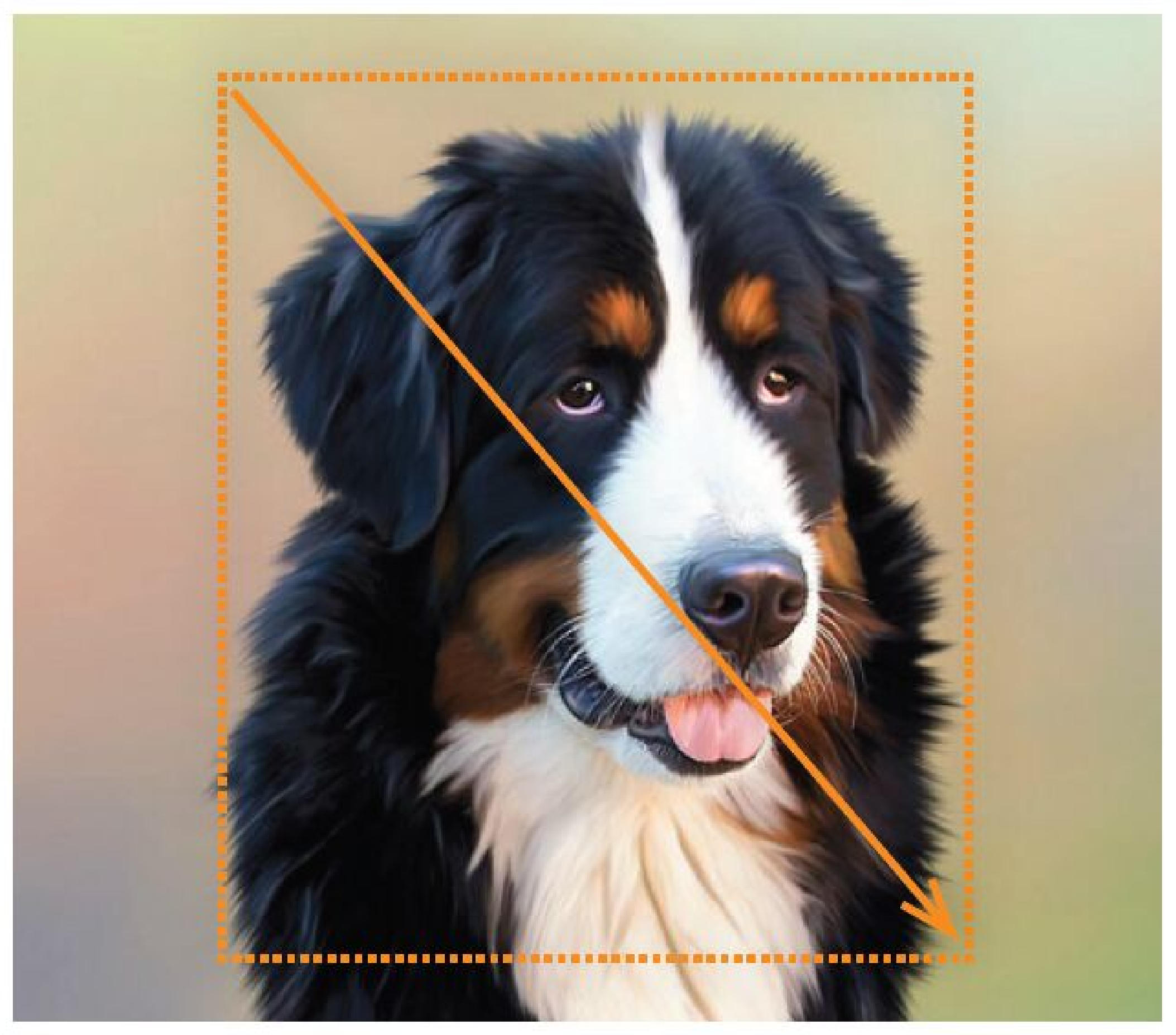
Let's take a look at the process of making a selection, and examine the various options that are available.

Elliptical Marquee Tool

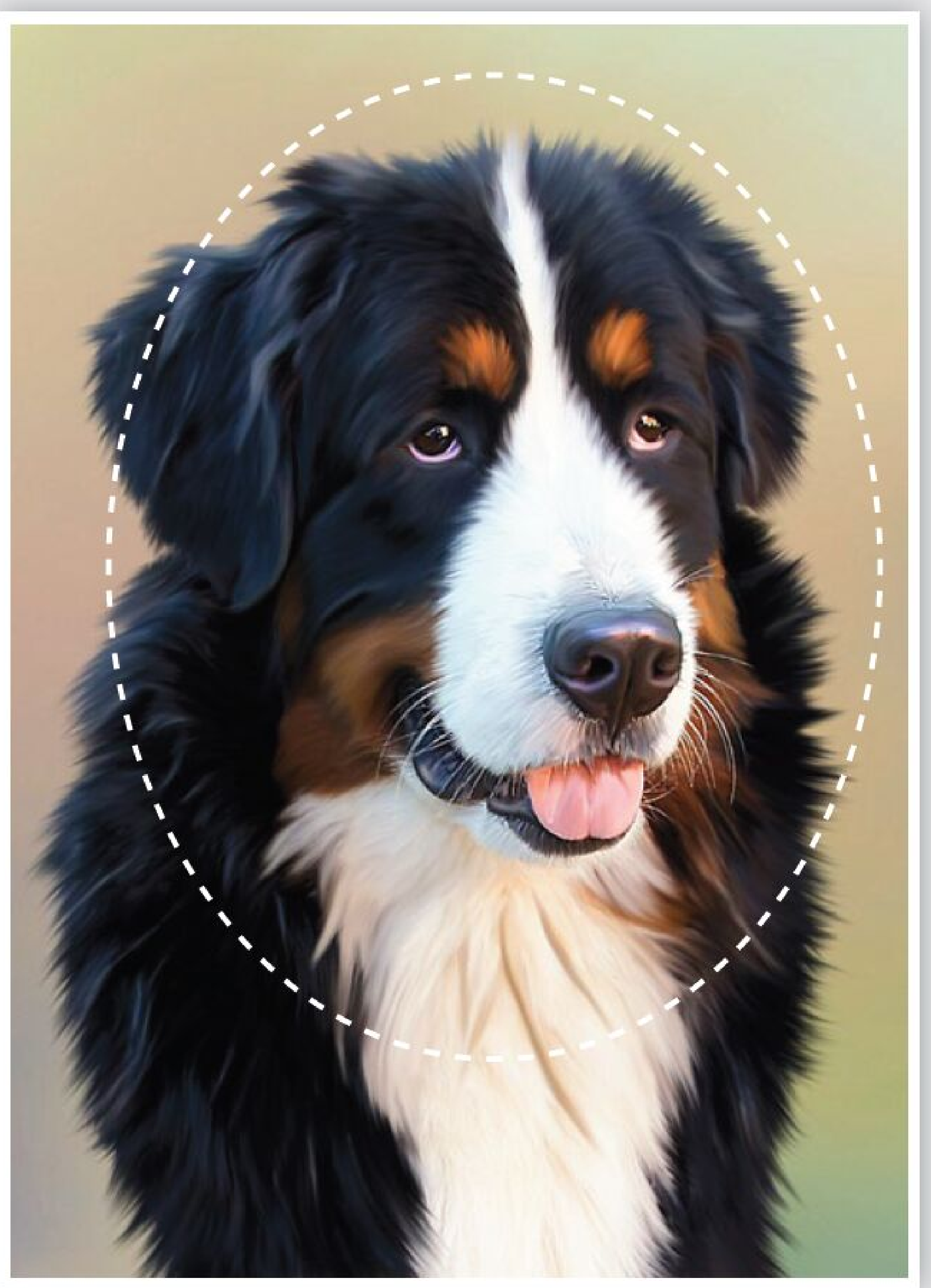

Feather: 0 px
MRK_0165.jpg @ 25% (RGB/8*)
Rectangular Marquee Tool M
Elliptical Marquee Tool M
Single Row Marquee Tool
Single Column Marquee Tool

01 The Elliptical Marquee Tool works in much the same way as the Rectangular Marquee, but draws a curved shape.

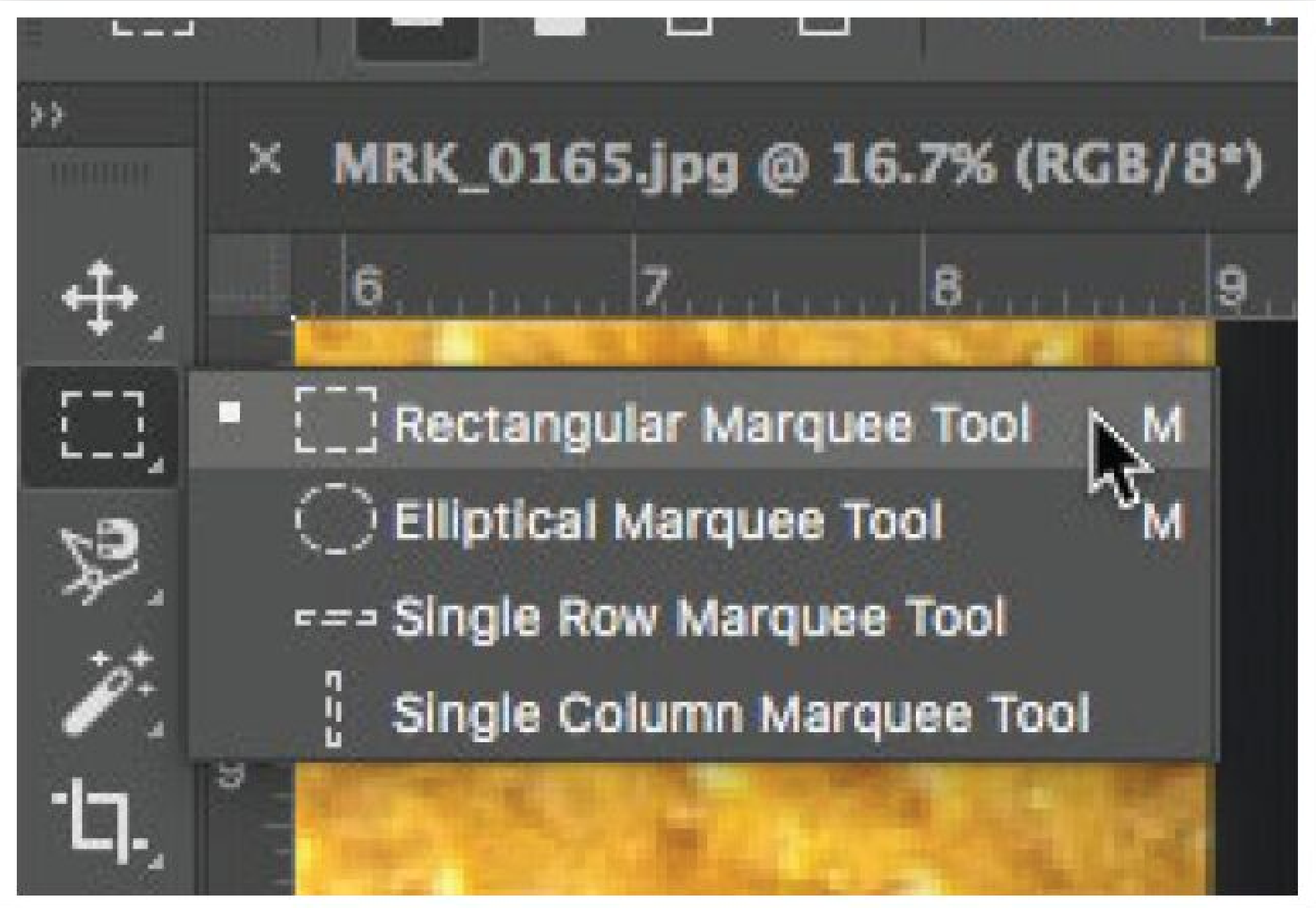
02 As with the Rectangular Marquee, you can set the size or aspect ratio. A ratio of 1x1 draws a circle, other ratios draw ellipses of various sizes.



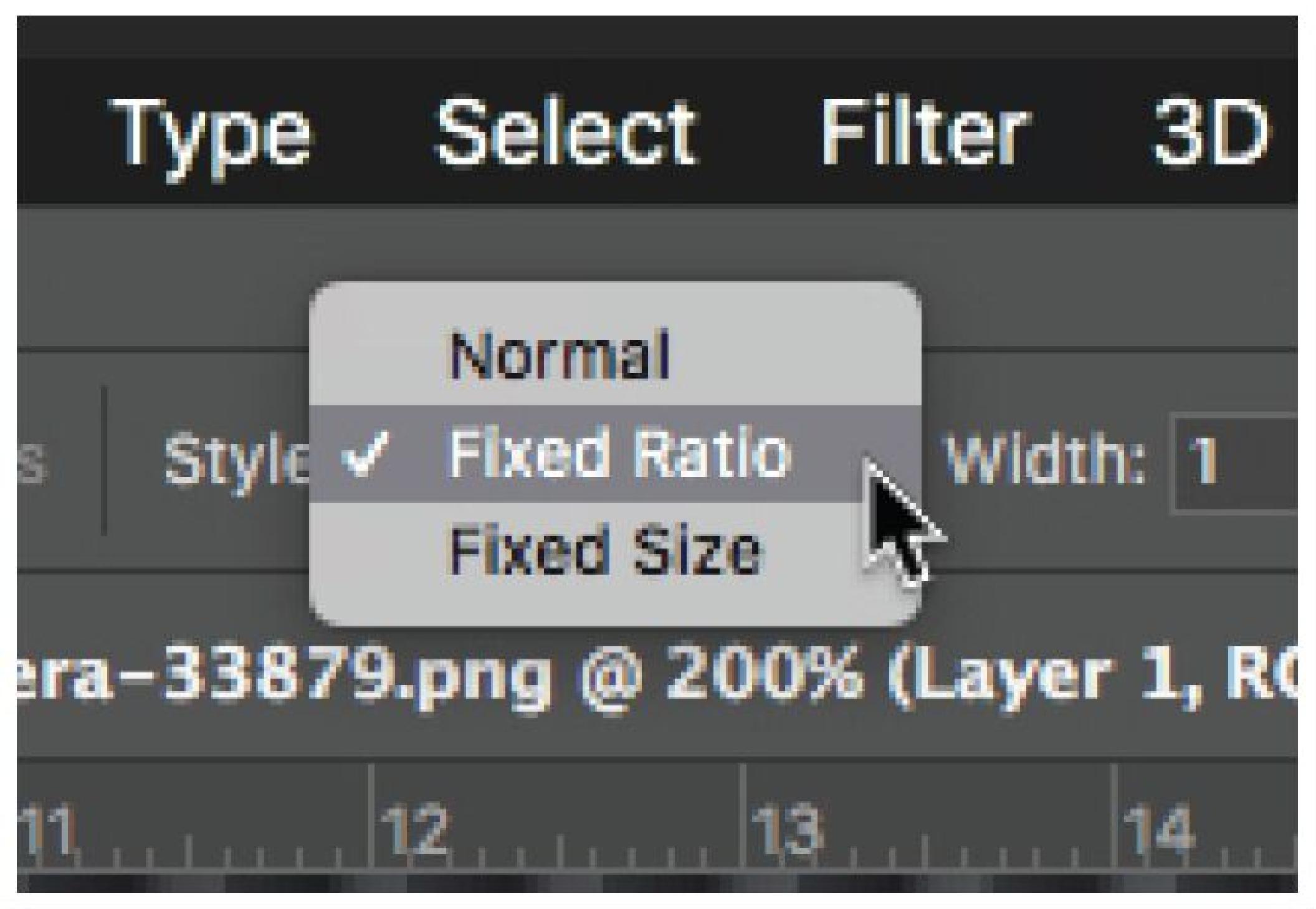
03 To draw an ellipse around your subject, imagine that it's actually a rectangle, start from one corner and drag to the diagonally opposite corner. This can be tricky to get right, so alternatively hold down the Alt key and start from the centre of where you want your ellipse to be.



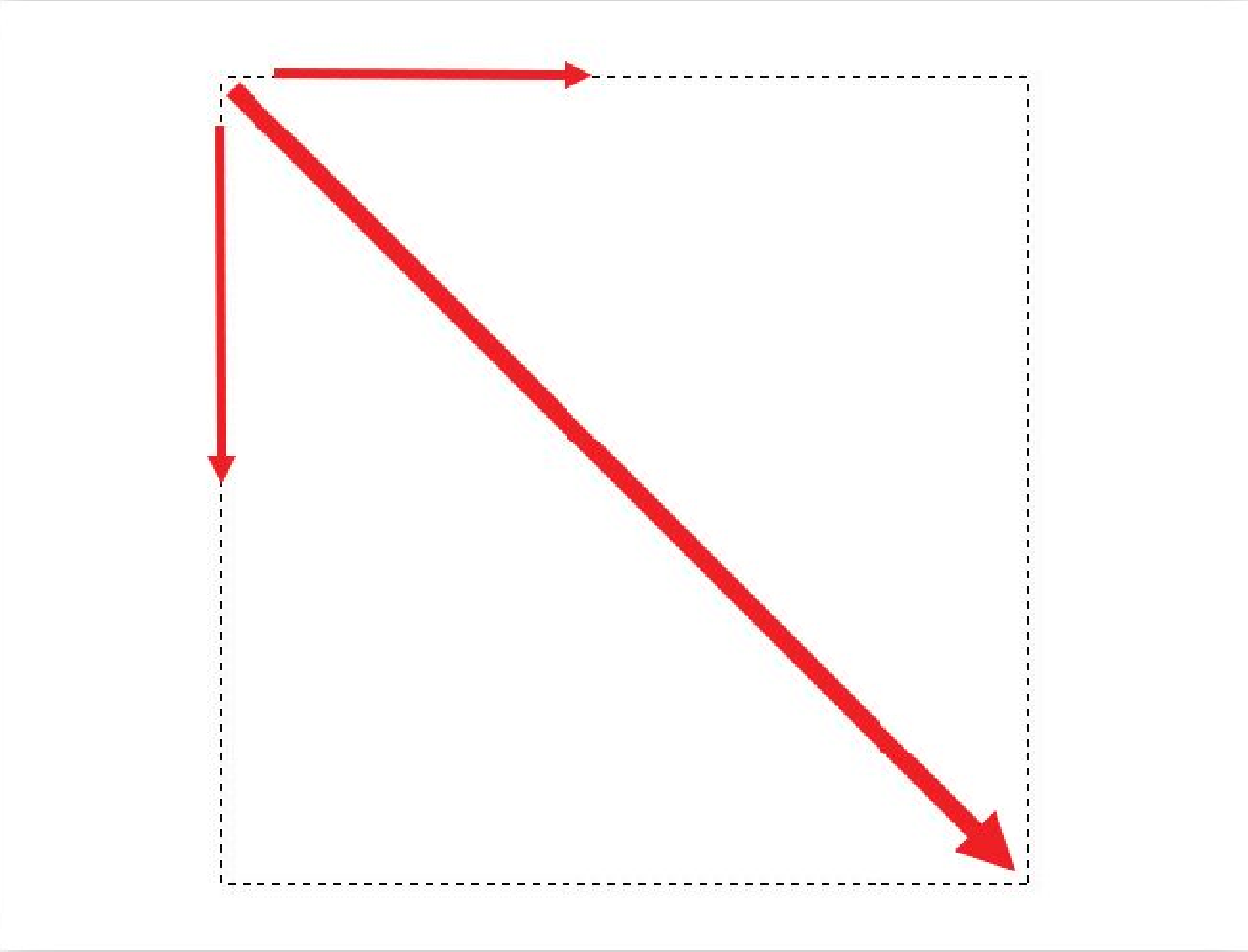
Simple Area Selection


MRK_0165.jpg @ 16.7% (RGB/8*)
Rectangular Marquee Tool M
Elliptical Marquee Tool M
Single Row Marquee Tool
Single Column Marquee Tool

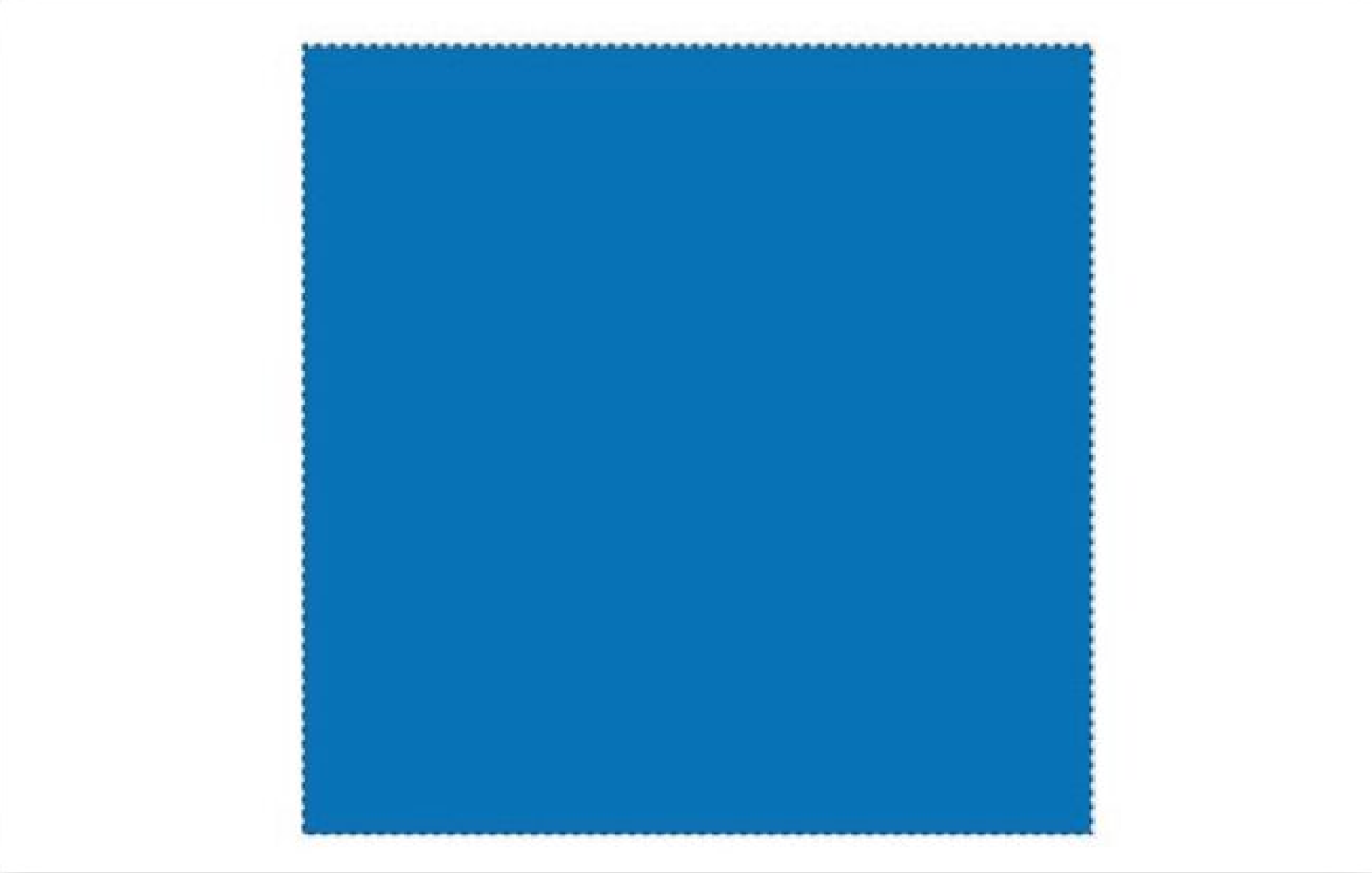
01 Let's start off with the simplest selection tool, the Rectangular Marquee. This is used, as the name implies, for selecting simple rectangular shapes.


Type
Select
Filter
3D
Normal
Style ✓ Fixed Ratio
Fixed Size
Width: 1
era-33879.png @ 200% (Layer 1, R

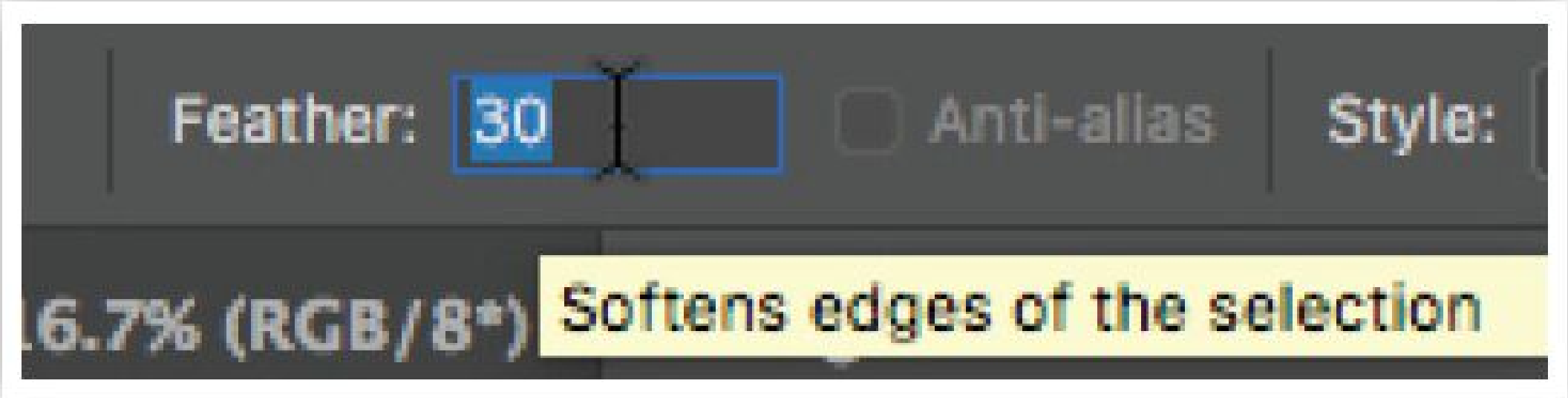
02 You can draw a freehand rectangle, or fix the size or aspect ratio by using the Tool Options. Let's draw a perfect square selection by setting a ratio of 1x1.



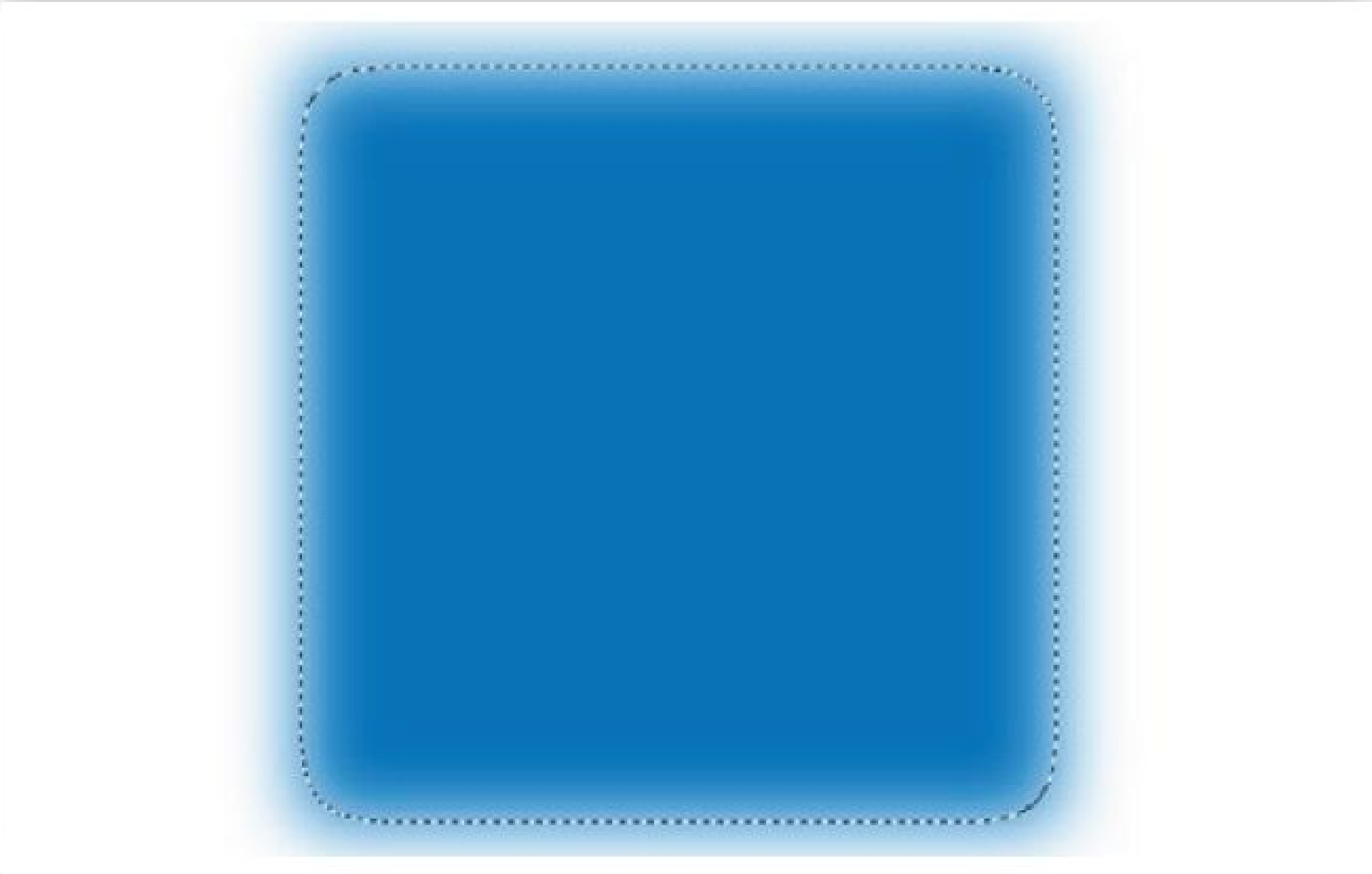
03 To draw a square, click on a point where you want one of the corners to be, then hold and drag to the diagonally opposite corner. You'll see the "marching ants" line of the selection box appear following the cursor.



04 If you use the Paint Bucket Tool to fill the area you've selected you'll see that the edges are very sharp.


Feather: 30
Anti-alias
Style:
6.7% (RGB/8*)
Softens edges of the selection

05 To make a soft-edged selection, type a number into the Feather box. The higher the number, the more blurred the edge will be.

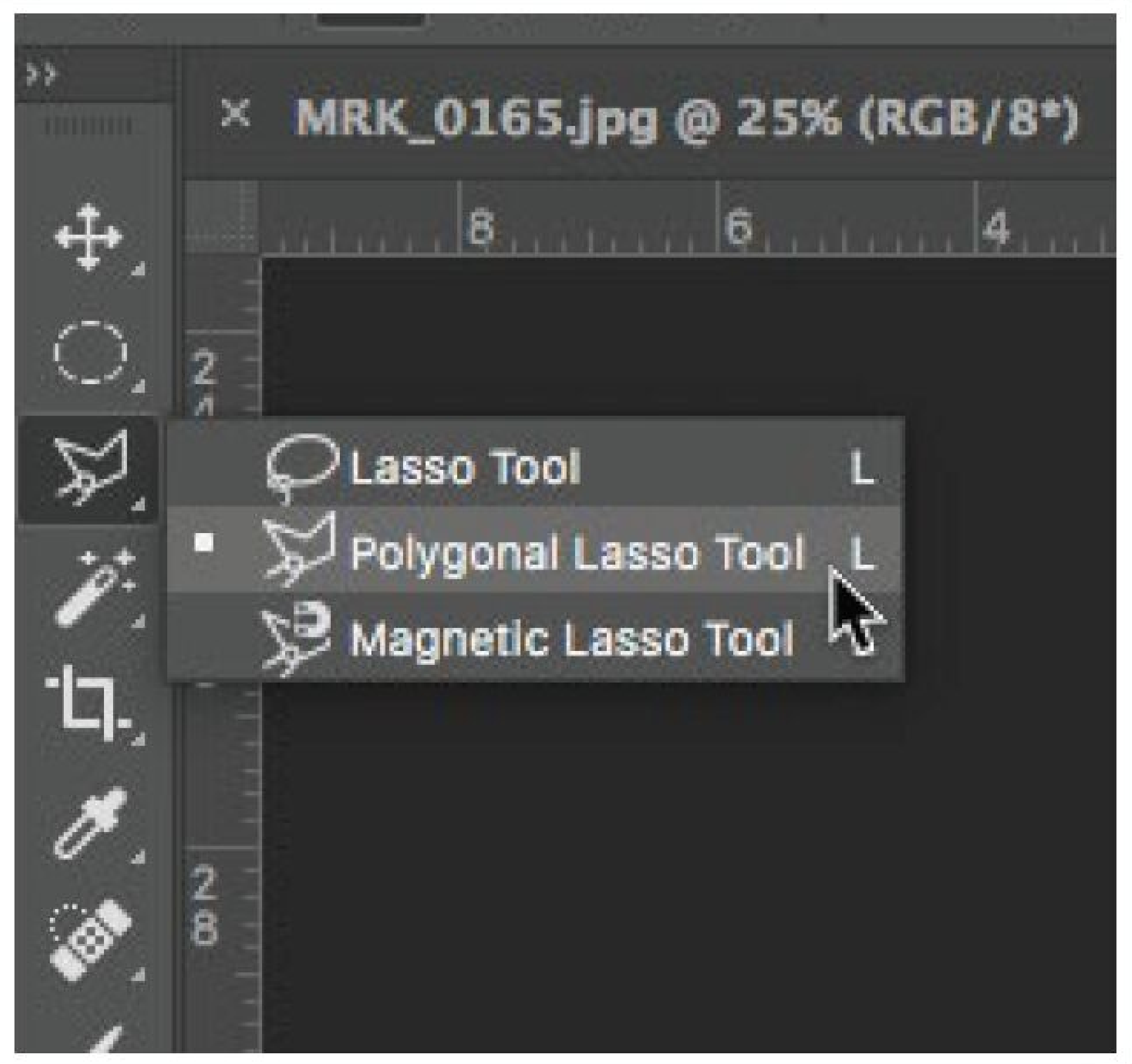


06 This time if you draw a selection and fill it, you'll see that the edges are very blurred, with the marquee "marching ants" line in the middle of the blurred area.

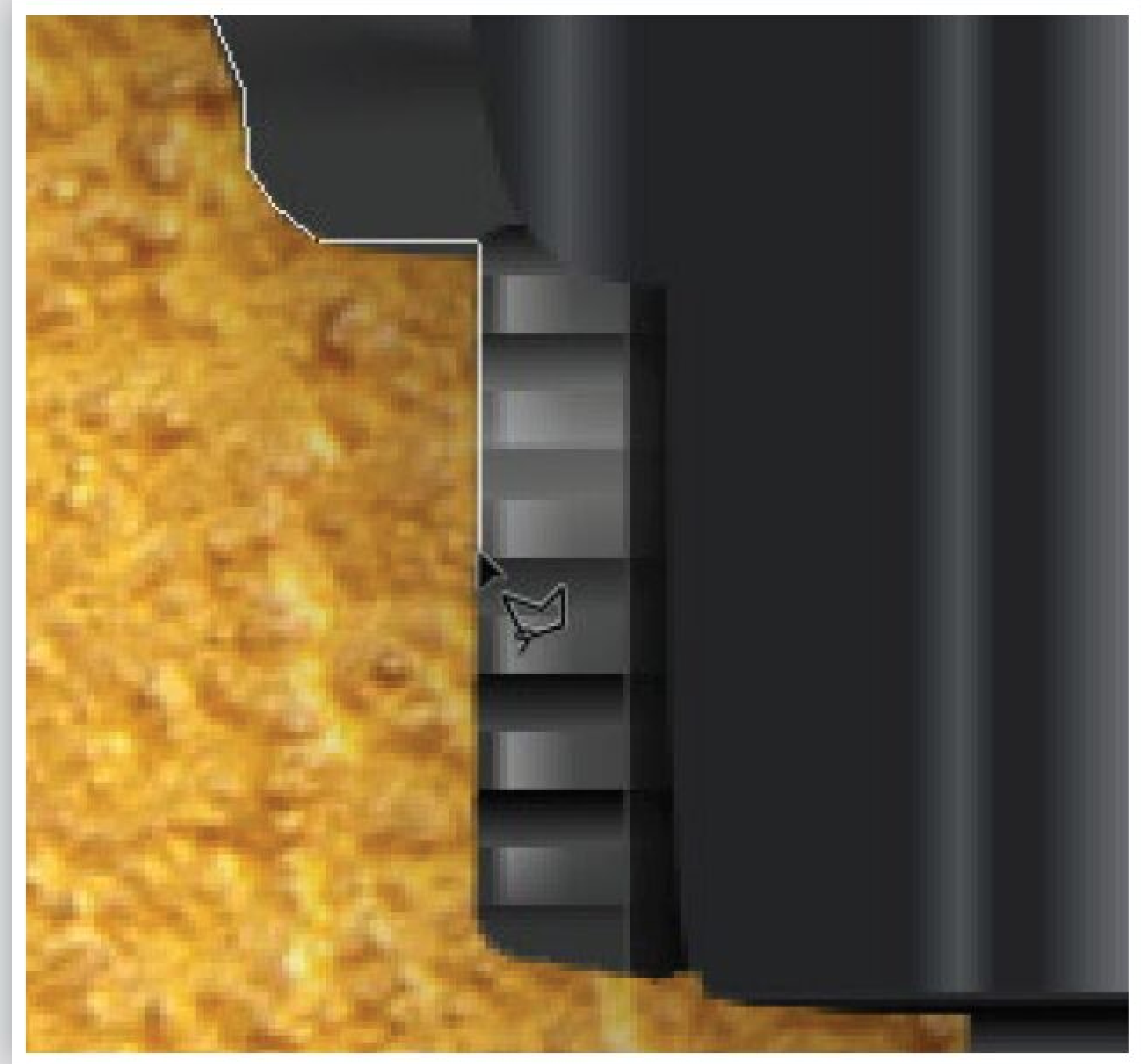
USEFUL TIP

If you want to select more than one area or add to the current selection, holding down the Shift key will temporarily put the tool into "Add to Selection" mode.

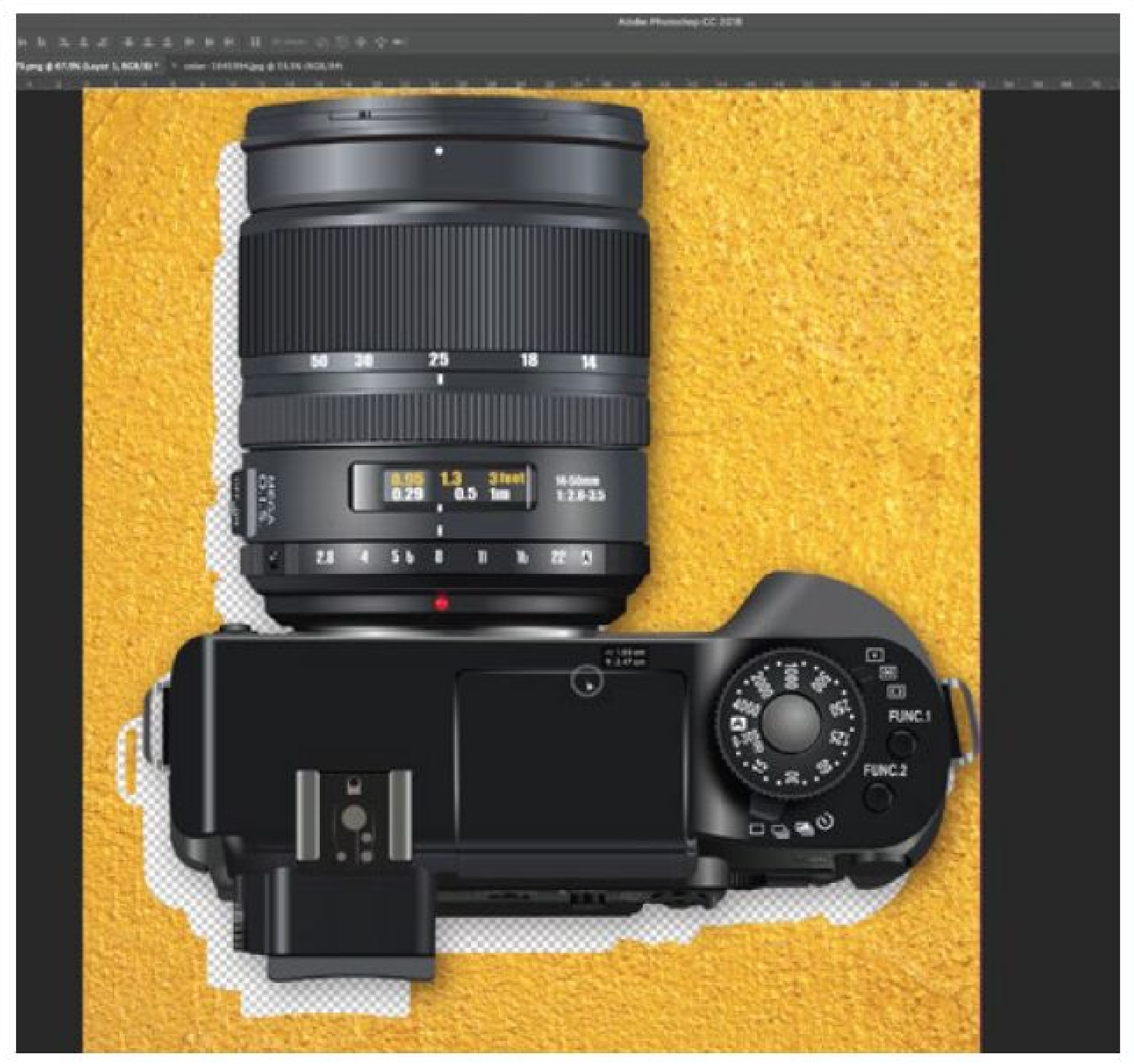
Polygonal Lasso Tool


MRK_0165.jpg @ 25% (RGB/8*)
Lasso Tool L
Polygonal Lasso Tool L
Magnetic Lasso Tool L

01 For selecting more complex shapes, the best option is the Polygonal Lasso Tool, or if you want to draw freehand, then the Lasso Tool is the one to go for. Drawing freehand may be quite odd using a mouse, but with a little practice you can use it with confidence.



02 With the Polygonal Lasso, you click around the edge of the area you want to select. When you complete the loop, or double-click, the selection is completed and you'll see the "marching ants" border.



03 A Polygonal Lasso selection is ideal if you want to cut or copy a complex shape out of a background, for example to make it part of another picture. It is particularly helpful when your subject has lots of straight, regular edges that are easy to follow.

Modifying Selections

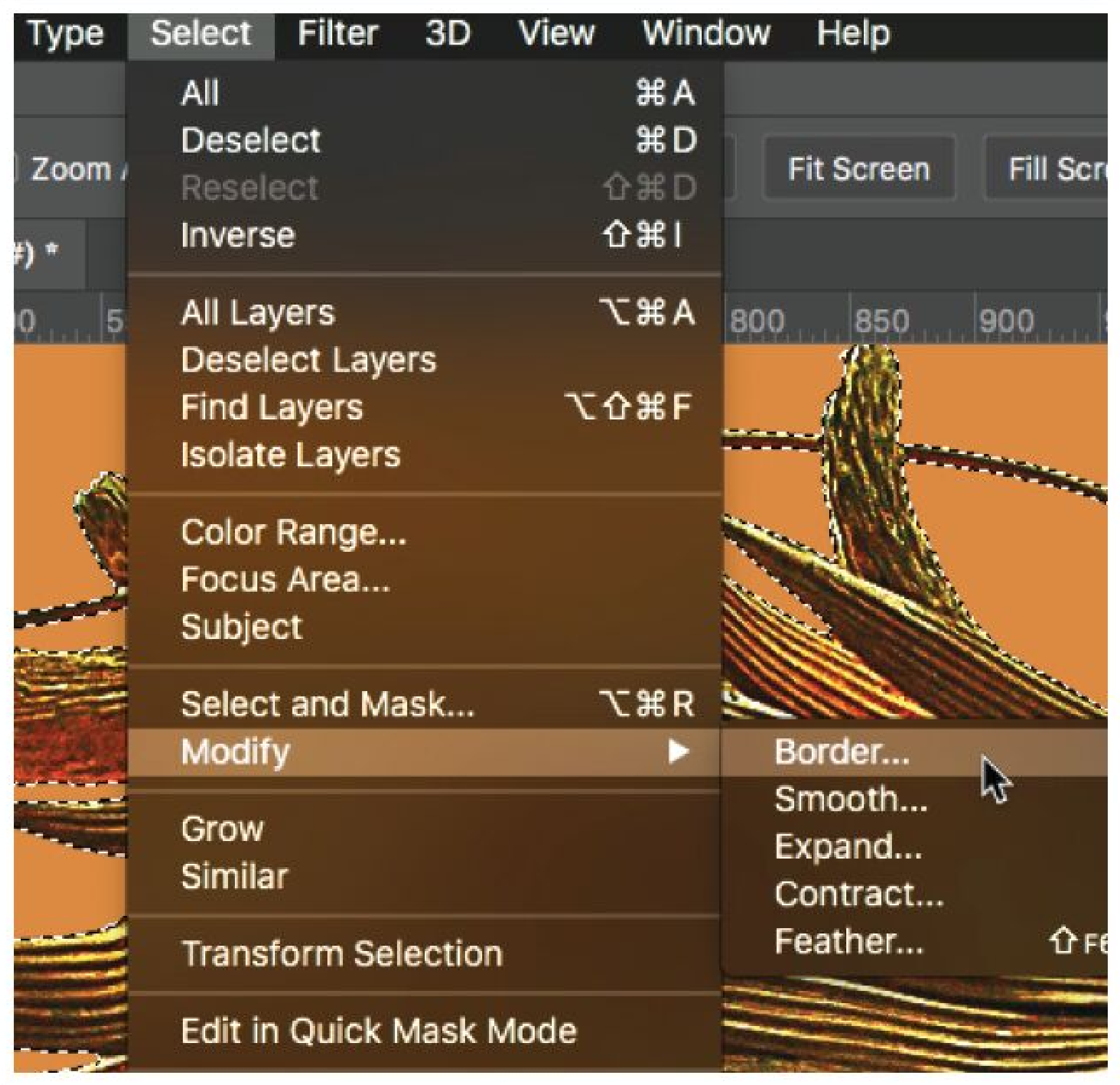
Photoshop has sophisticated tools to refine selections

Photoshop's standard selection tools: the Marquee, Lasso and Magic Wand, are fine for making basic selections of regular, well defined shapes, but they're not so good at picking out soft-edged or very fine shapes. One thing in particular, that has always been a problem, is the edge of fine or untidy hair. Take the photo shown here for example:

This image is representative of a typical studio setting, with good lighting and against a plain background. Photos like this are used all the time for catalogues, advertising posters and the like.

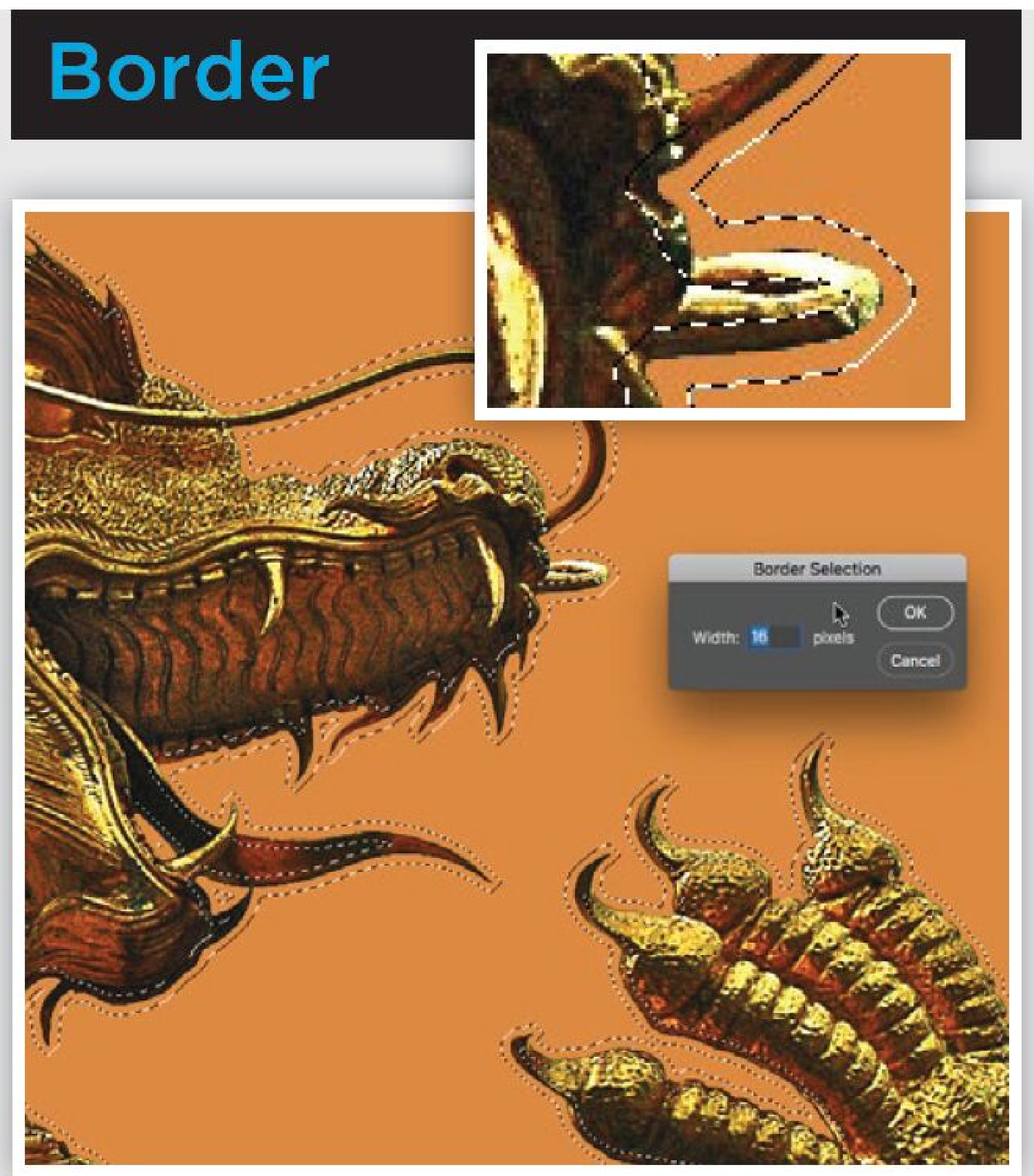
However, in order to fit these needs the model will have to be separated from the background. With a plain background like this, it would be tempting to use a normal selection tool such as the Magic Wand. However if we try it, what we end up with is something like this:

Modify Selection


Type
Select
Filter
3D
View
Window
Help
All ⌘A
Deselect ⌘D
Reselect ⇧⌘D
Inverse ⇧⌘I
All Layers ⌥⌘A
Deselect Layers
Find Layers ⌥⇧⌘F
Isolate Layers
Color Range...
Focus Area...
Subject
Select and Mask... ⌥⌘R
Modify
Grow
Similar
Transform Selection
Edit in Quick Mask Mode
Border...
Smooth...
Expand...
Contract...
Feather...
Zoom
Fit Screen
800
850
900

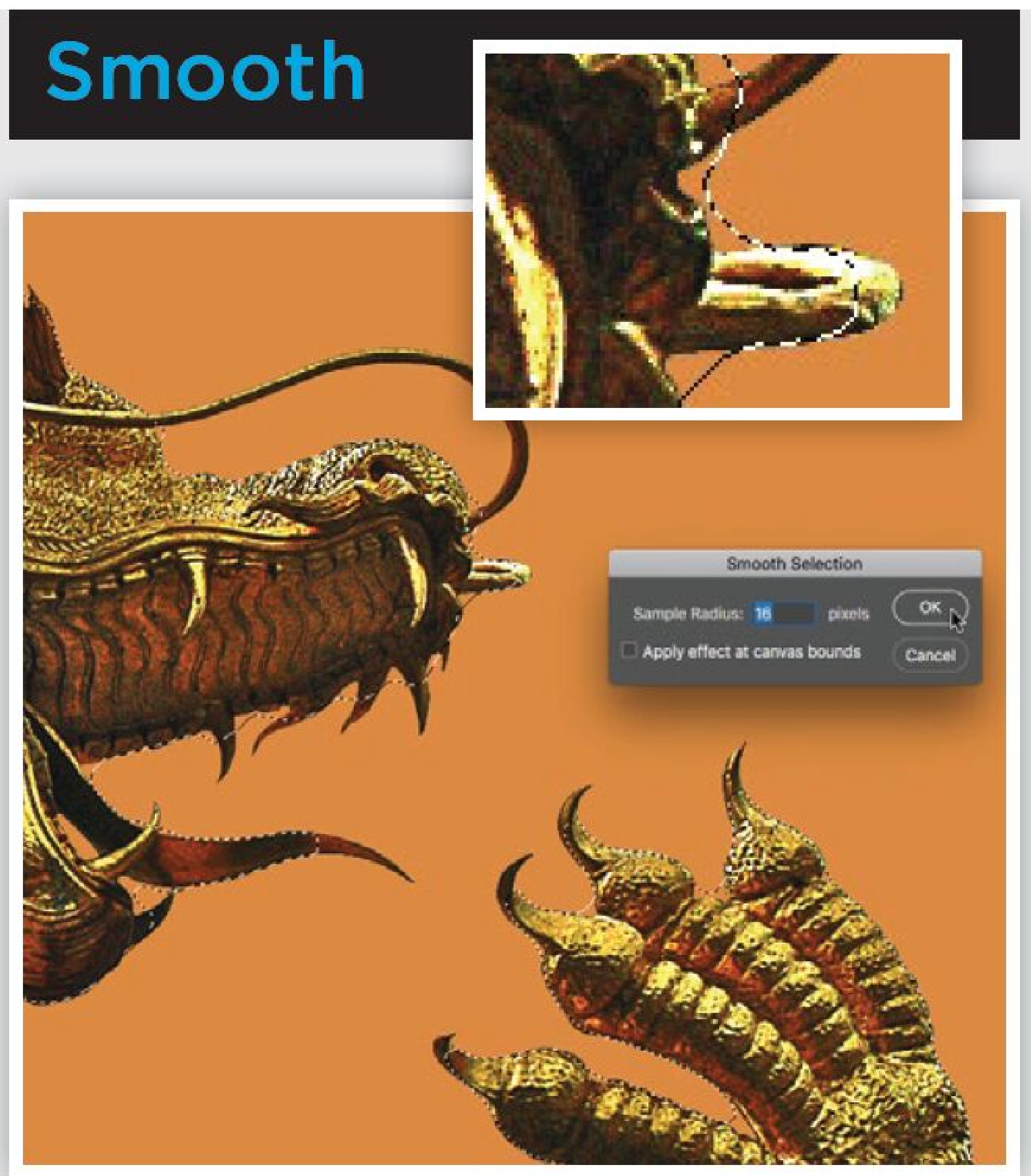
Photoshop has other tools to modify a selection which you'll find, appropriately enough, in the Select menu, under Modify. The options include: Border, Smooth, Expand, Contract and Feather. They're all relatively simple, but useful nonetheless. We have some examples to show you.

Border

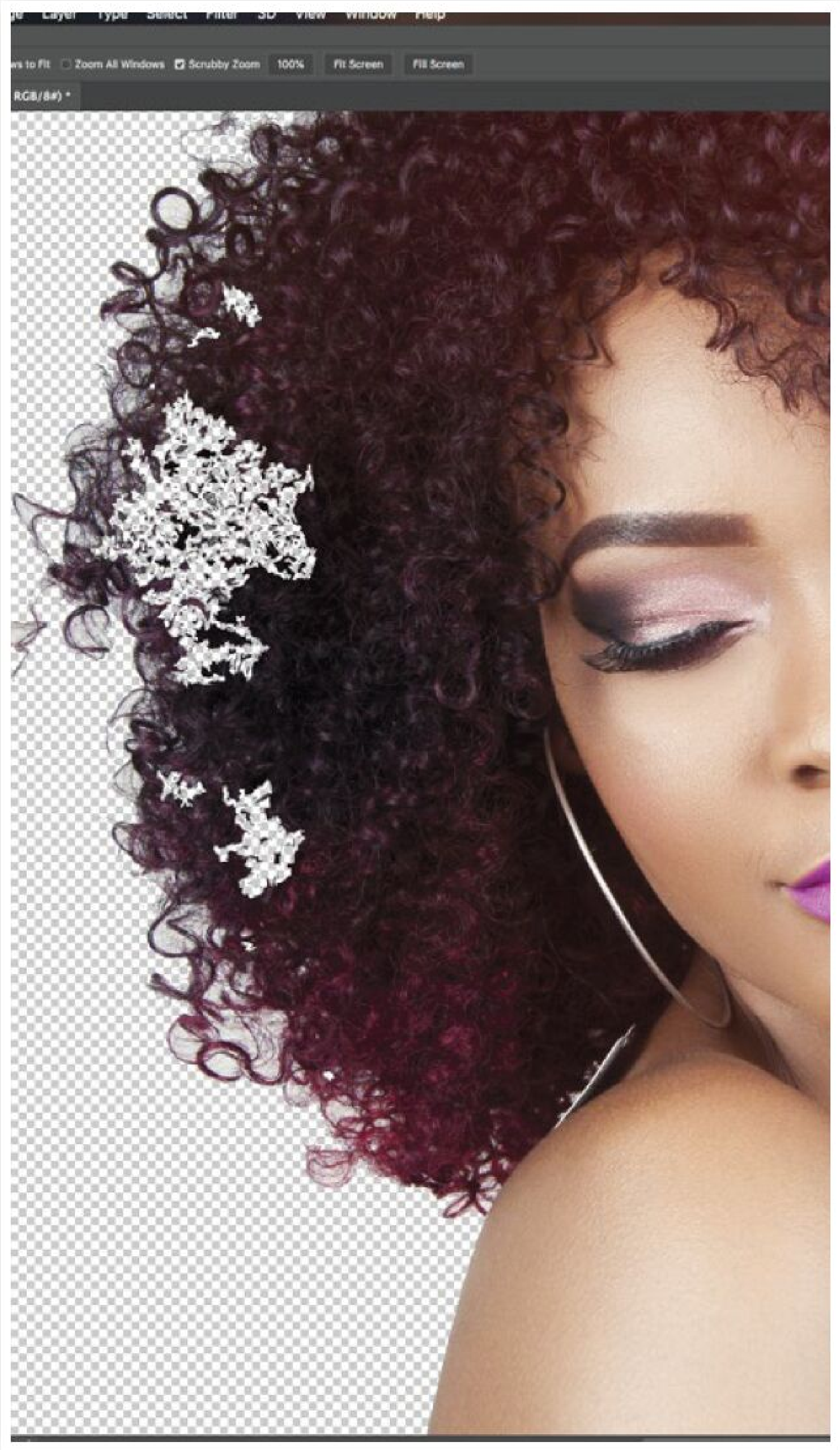

Border Selection
Width: 16 pixels

Border converts the single-line selection into a border of the specified width. You can use this selection to create a border around your original selection by using the Paint Bucket Tool. Be aware that the border extends an equal amount from either side of your original selection.

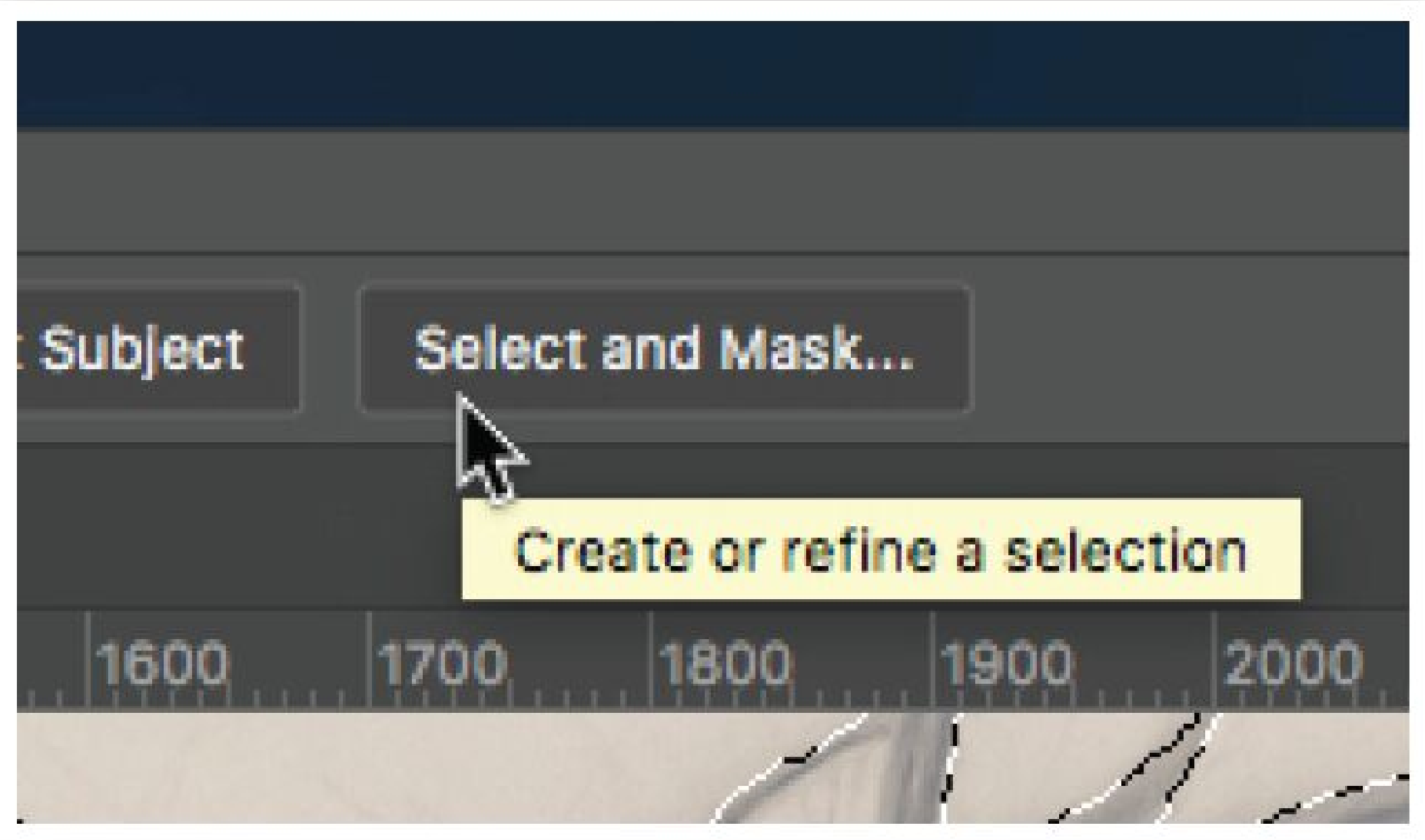
Smooth


Smooth Selection
Sample Radius: 16 pixels
☐ Apply effect at canvas bounds

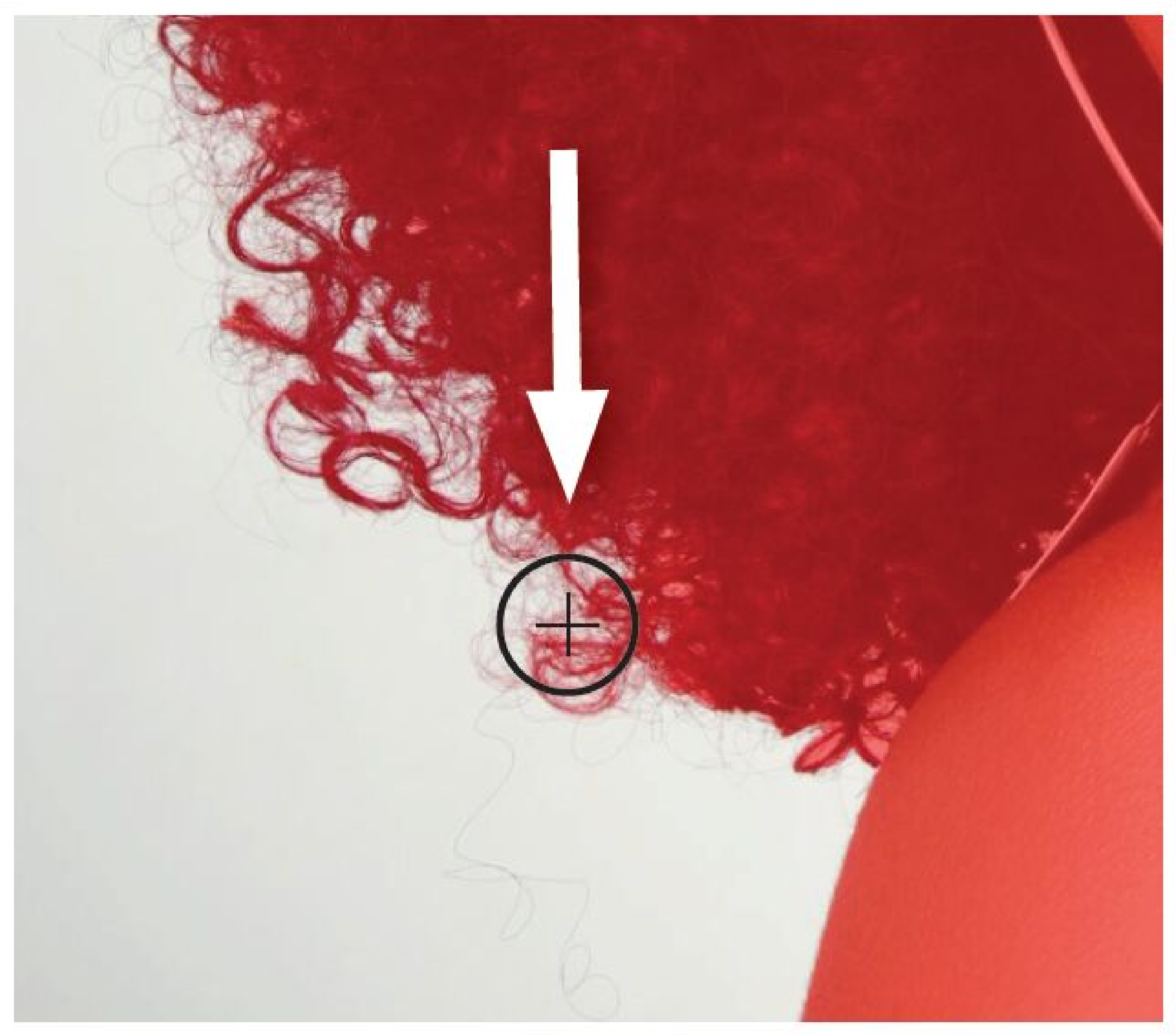
Smooth removes the kinks and wrinkles from the line of your selection. It's useful when you're selecting smooth-edged objects, but it will round off the corners of any irregular shapes. The larger the value of Smooth Selection, the smoother and less detailed the selection becomes.



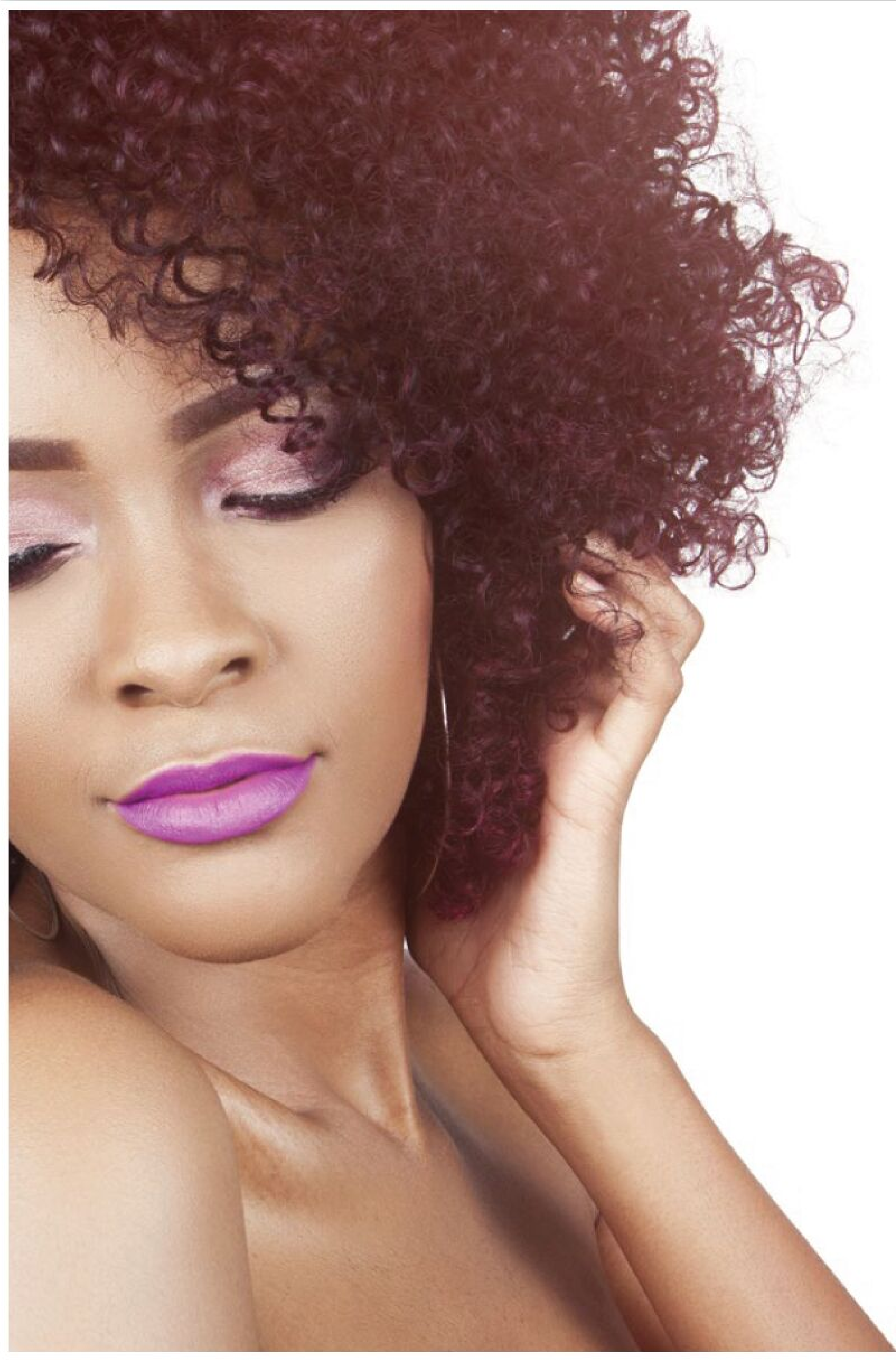
As you can see, the edge around the model's hair looks terrible. The automatic Magic Wand selection has produced a very jagged edge, because it can't distinguish between the fine edge of the hair and the background. Fortunately the latest version of Photoshop has a feature called Select and Mask, which is capable of making much finer distinctions.



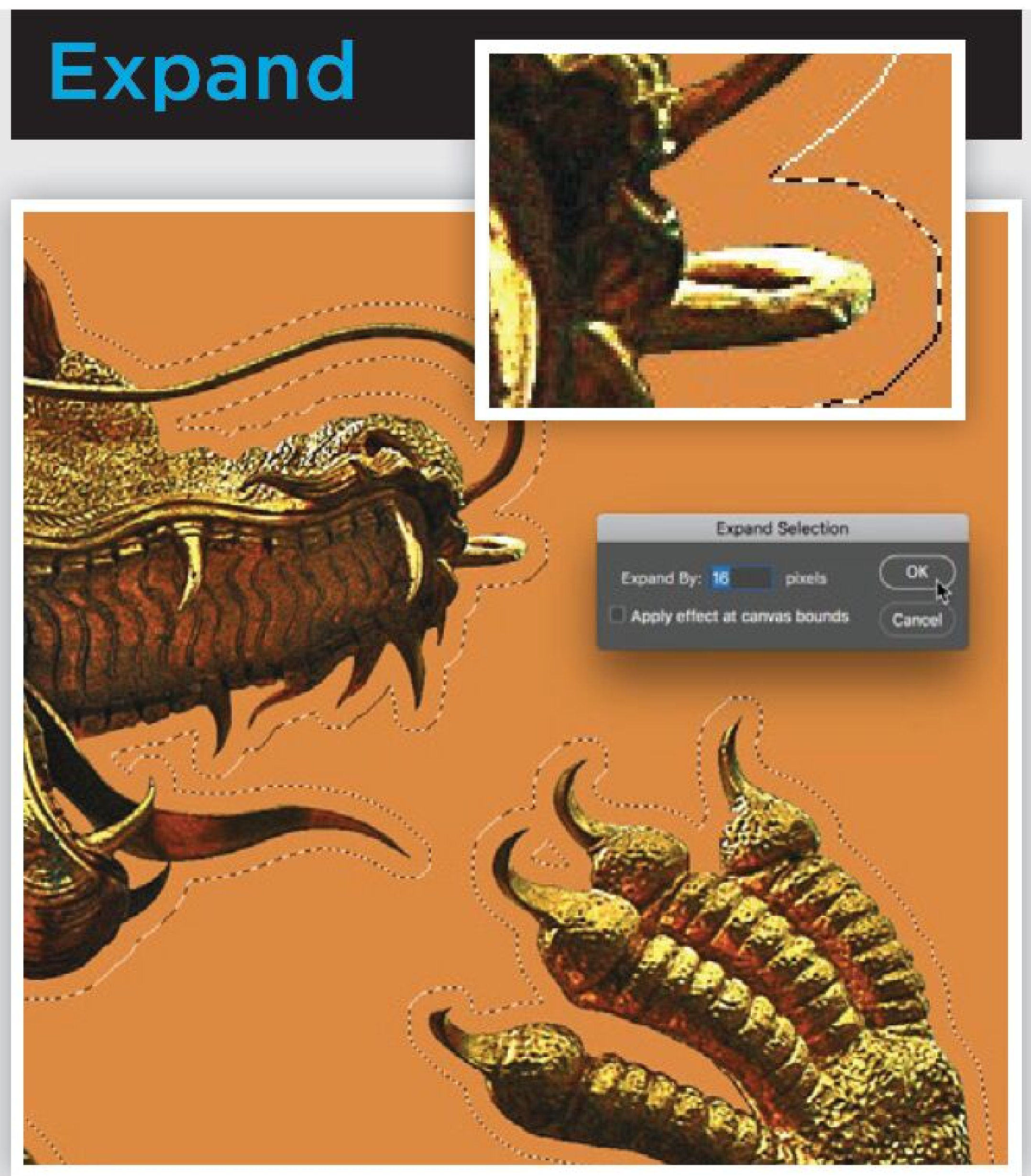
Select and Mask is very easy to use. Starting with a Magic Wand or Polygonal Lasso selection as close as possible to the edge of the hair, or any other soft edge, click on the Refine Edge button on the Tool Options bar. In the dialog window that opens, in Edge Definition, check the box marked Smart Radius and use the square brackets keys to set the brush size so that it's large enough to cover the hazy edge area around the hair. Then simply paint around the edge, overlapping both the model and the background.



When you've been around all the edge area that you want to refine, click OK and then wait a few seconds while the program recalculates the edge. As you can see here, the result is a good improvement over the first attempt.



Expand



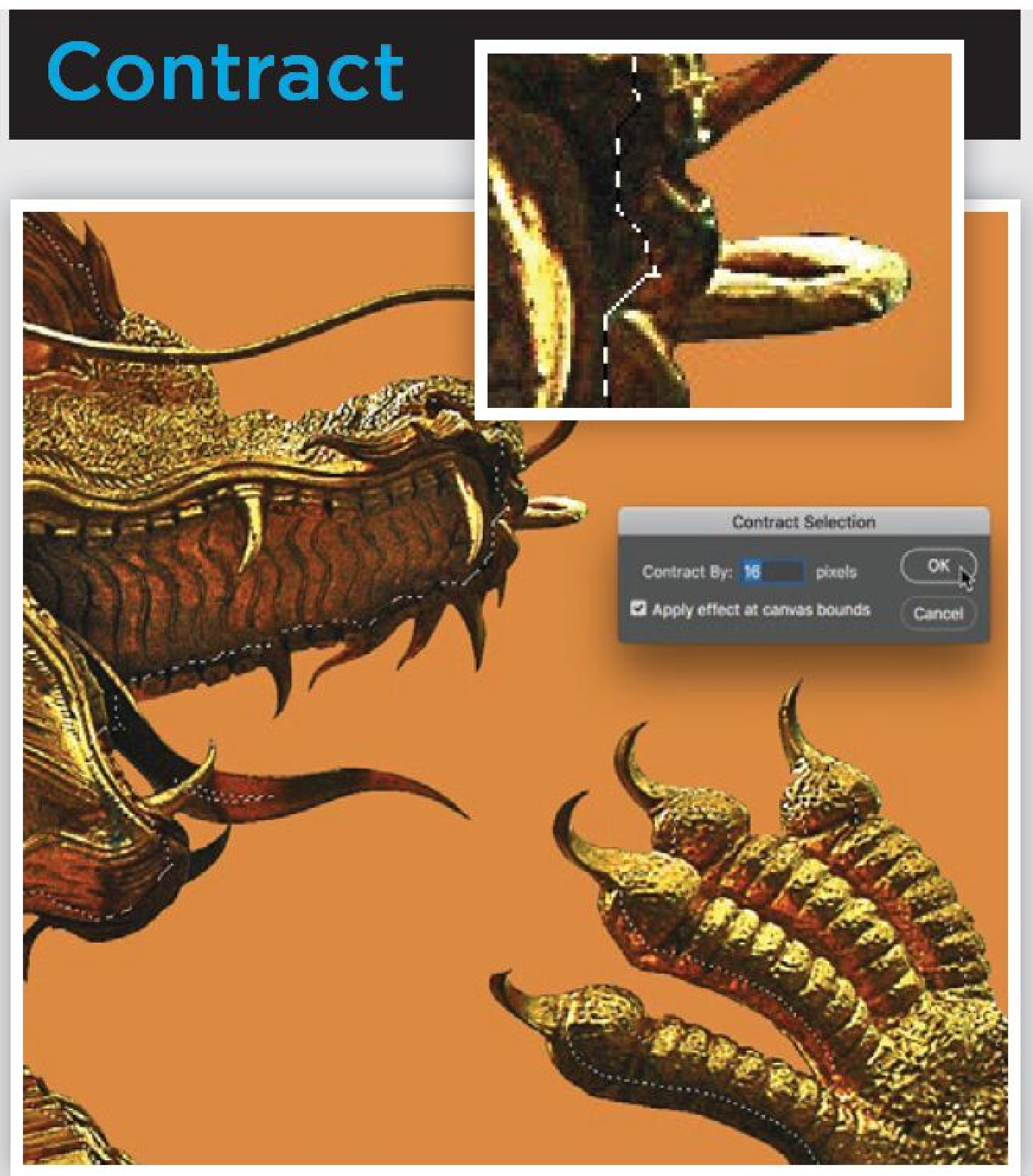
Expand Selection

Expand By: 16 pixels

☐ Apply effect at canvas bounds

Expand, as the name suggests, expands the size of the selection by the specified number of pixels. The larger the value you expand the selection by, the more the detail and shape of your original selection will begin to decrease as it enlarges outwards.

Contract



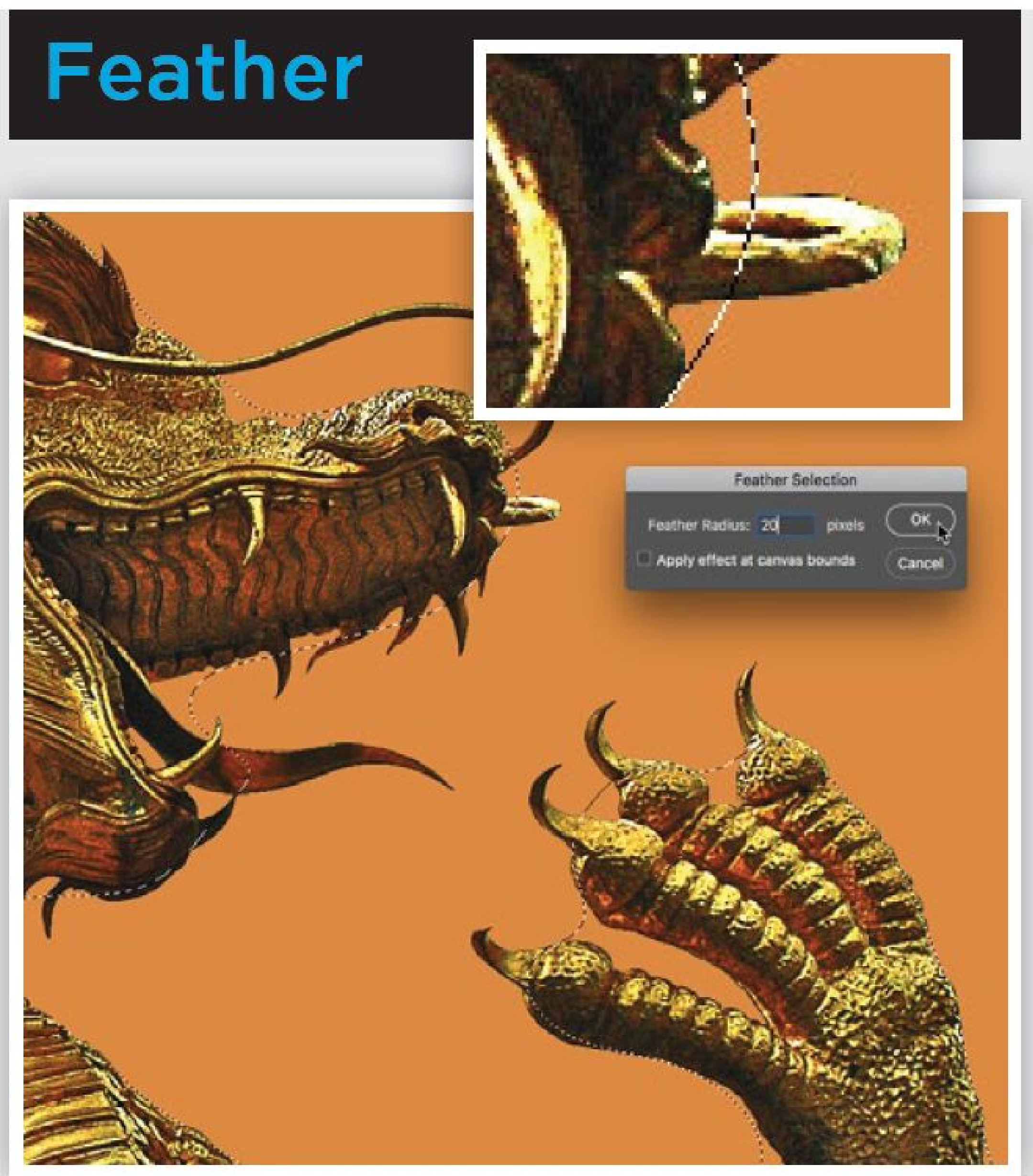
Contract Selection

Contract By: 16 pixels

☑ Apply effect at canvas bounds

Contract is the opposite of Expand. It shrinks the size of the selection by the specified number of pixels. As with the Expand option, the more you Contract the selection, the more the original selection shape's detail will become less well defined.

Feather



Feather Selection

Feather Radius: 20 pixels

☐ Apply effect at canvas bounds

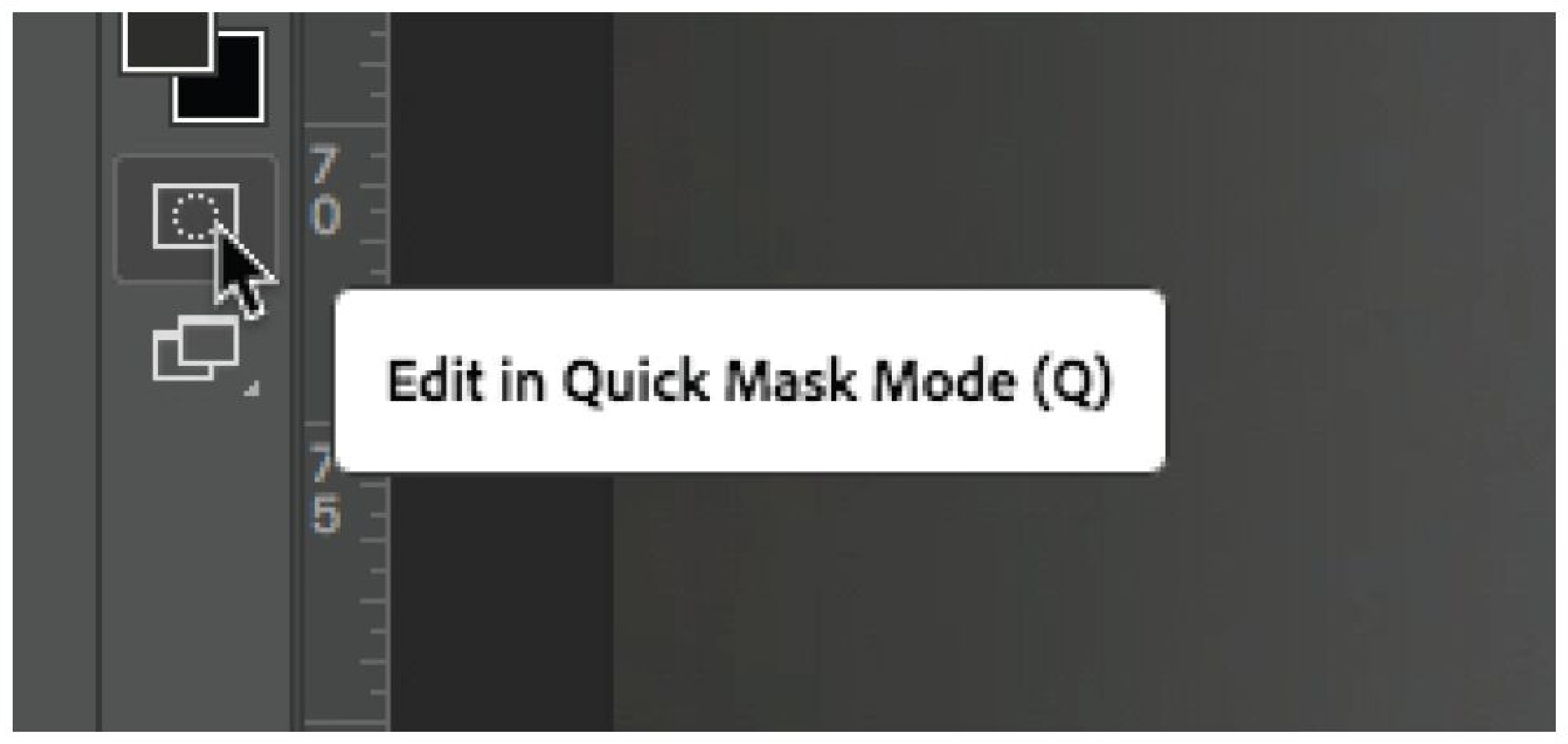
We've looked at Feather before. It softens the edge of the selection by the radius set in the dialog box. It's perhaps the most useful option here, particularly if you're trying to copy and paste the selection into a background. Unlike Smooth, this creates a soft vignette effect.

Quick Mask Mode

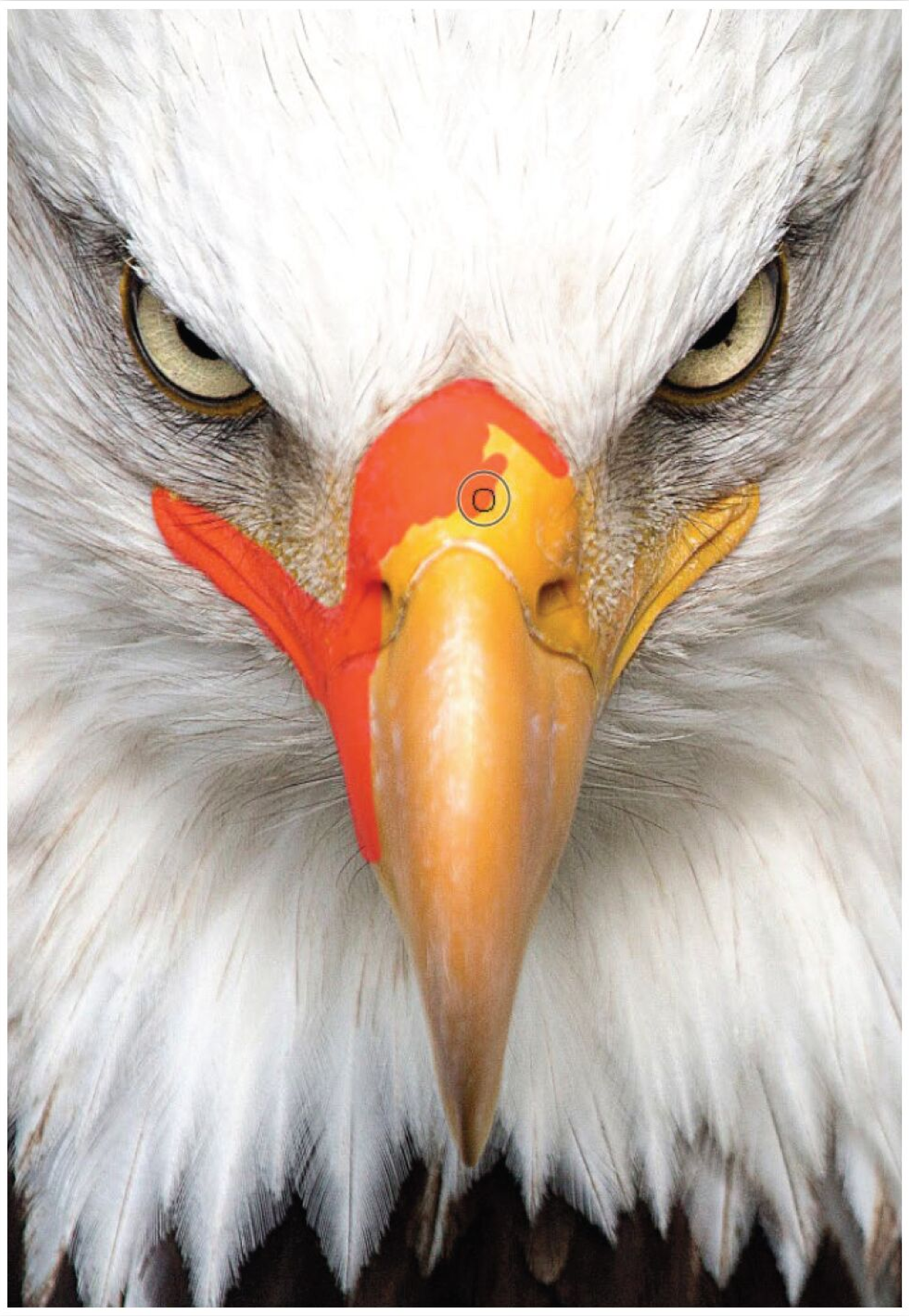
There's a quicker way of editing selections and masks

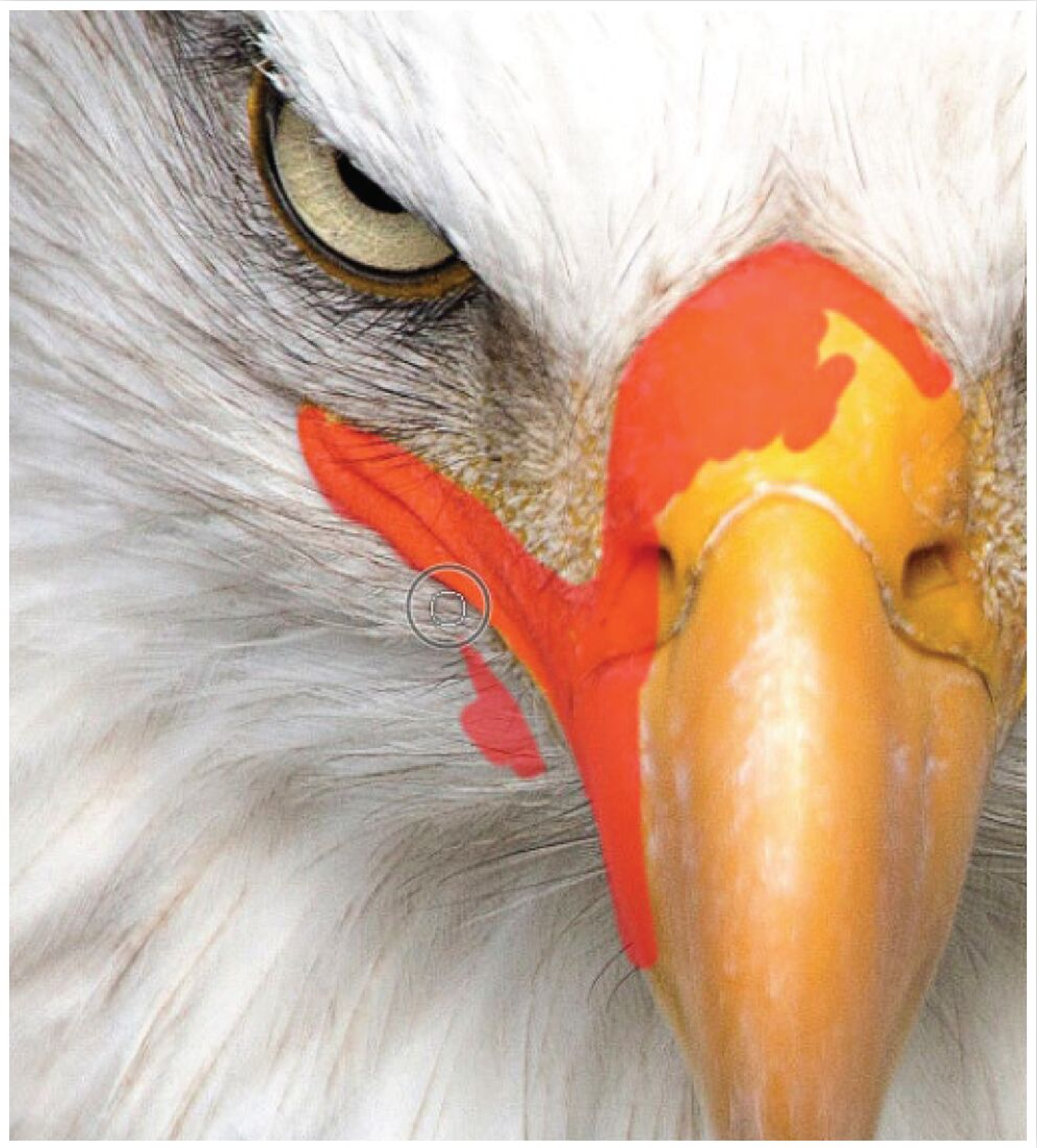
USEFUL TIP

By varying the transparency of the Quick Mask selection you can alter the effect of the edit you want to perform.



Often when editing in Photoshop it's useful to be able to block off certain areas that we don't want to be affected. For that we use masks and there are several ways of creating them, but by far the easiest is Quick Mask, a fantastically useful feature that was first introduced in Photoshop 7. Quick Mask lets you create and edit masks and selections quickly and easily using any of Photoshop's pixel painting tools to apply a brushed mask with freehand strokes of the mouse. It's extremely simple to use, but it can produce a wide and varied range of results. You'll find the Quick Mask mode button near the bottom of the Tool Palette. Clicking it will toggle Quick Mask mode on or off.

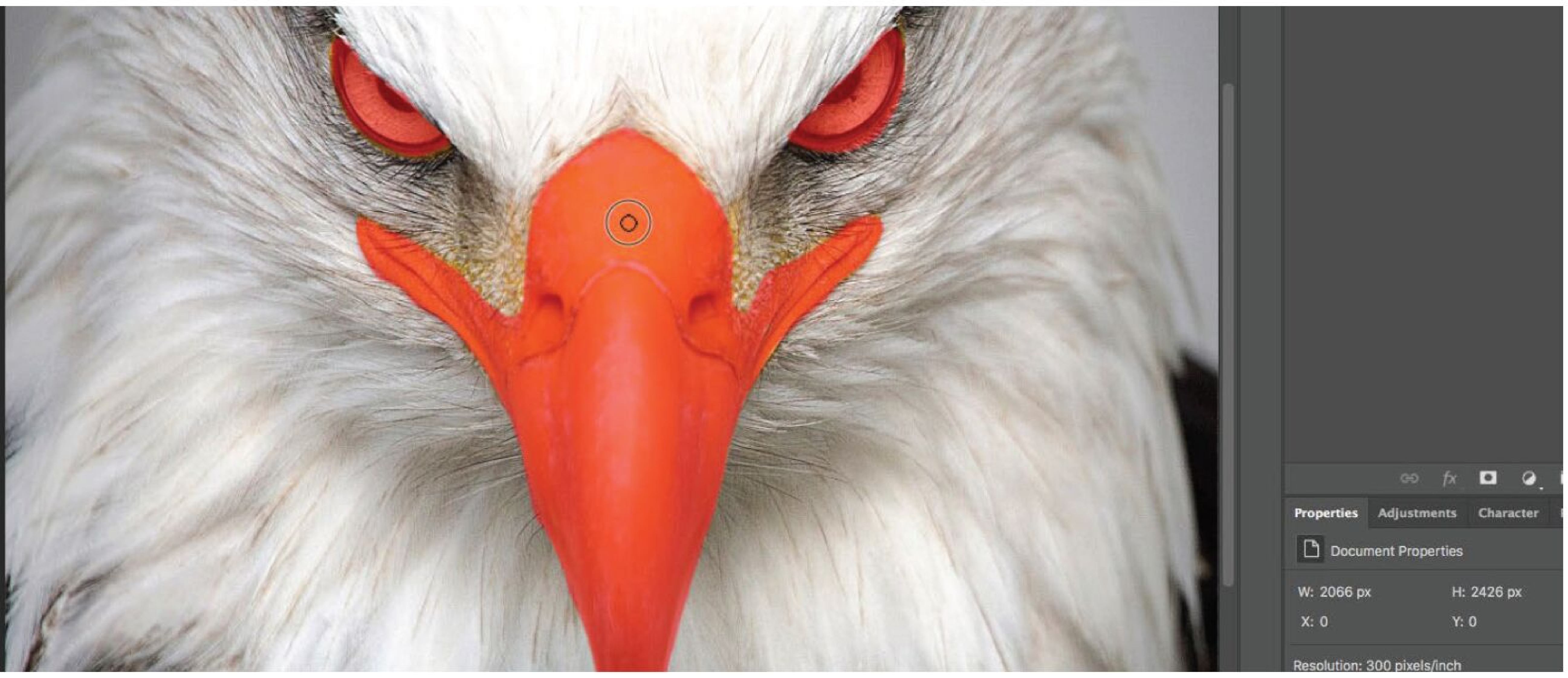




The most basic way to use Quick Mask is with the brush tool. When you switch on Quick Mask, you'll notice that the foreground and background colours change to black and white. Select a normal paint brush and start painting in black. You'll see that instead of black, the colour is a translucent red. Paint this colour over the area you want to mask.

If you make a mistake and overlap your area, simply switch to the white background colour. Painting white will erase the mask.

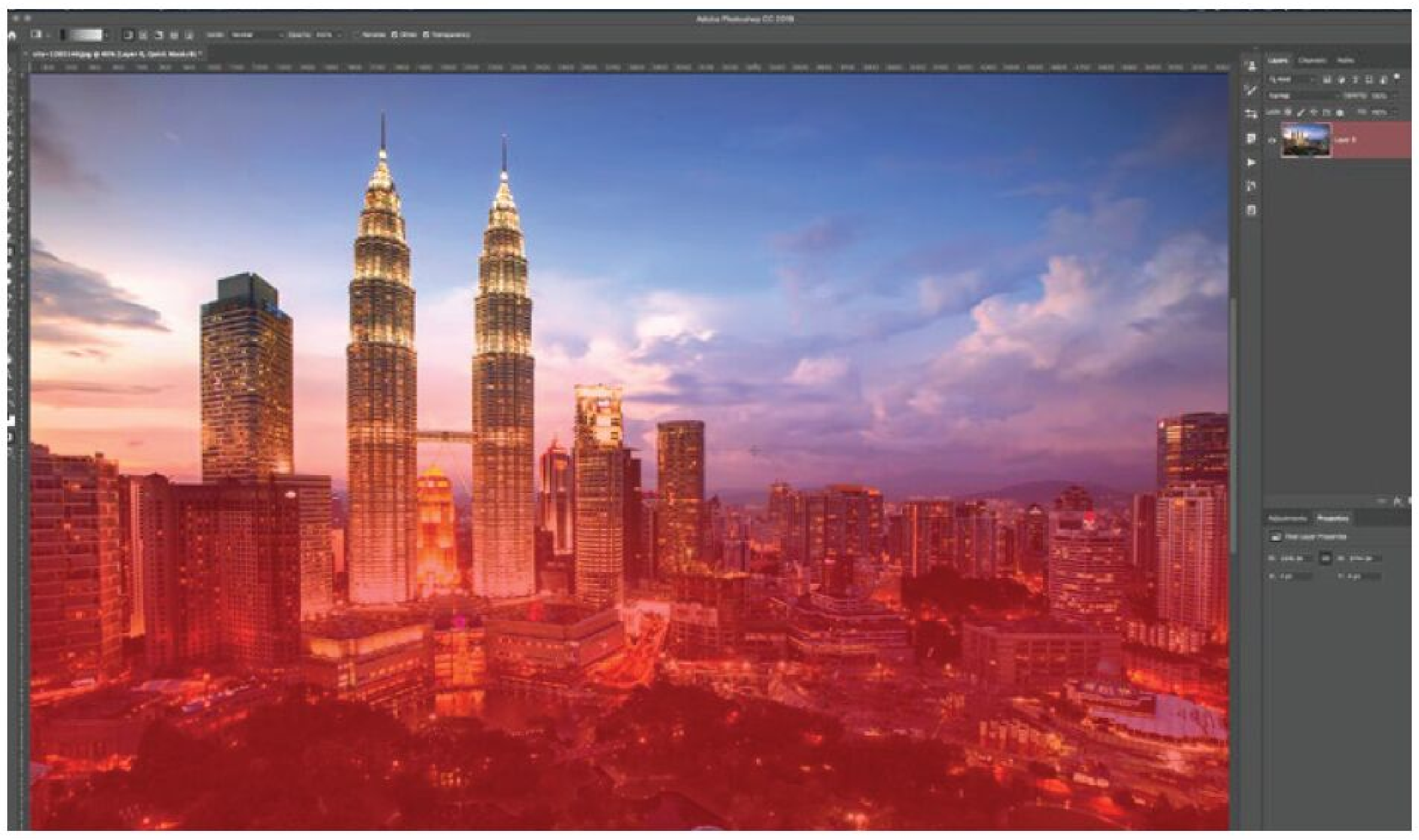
By using a combination of the two you can mask out even quite complex shapes. If you then toggle out of Quick Mask mode, you'll find that all but the area you've masked will be selected. You can now alter very specific areas of your image, such as just the beak and eye areas on this eagle portrait.

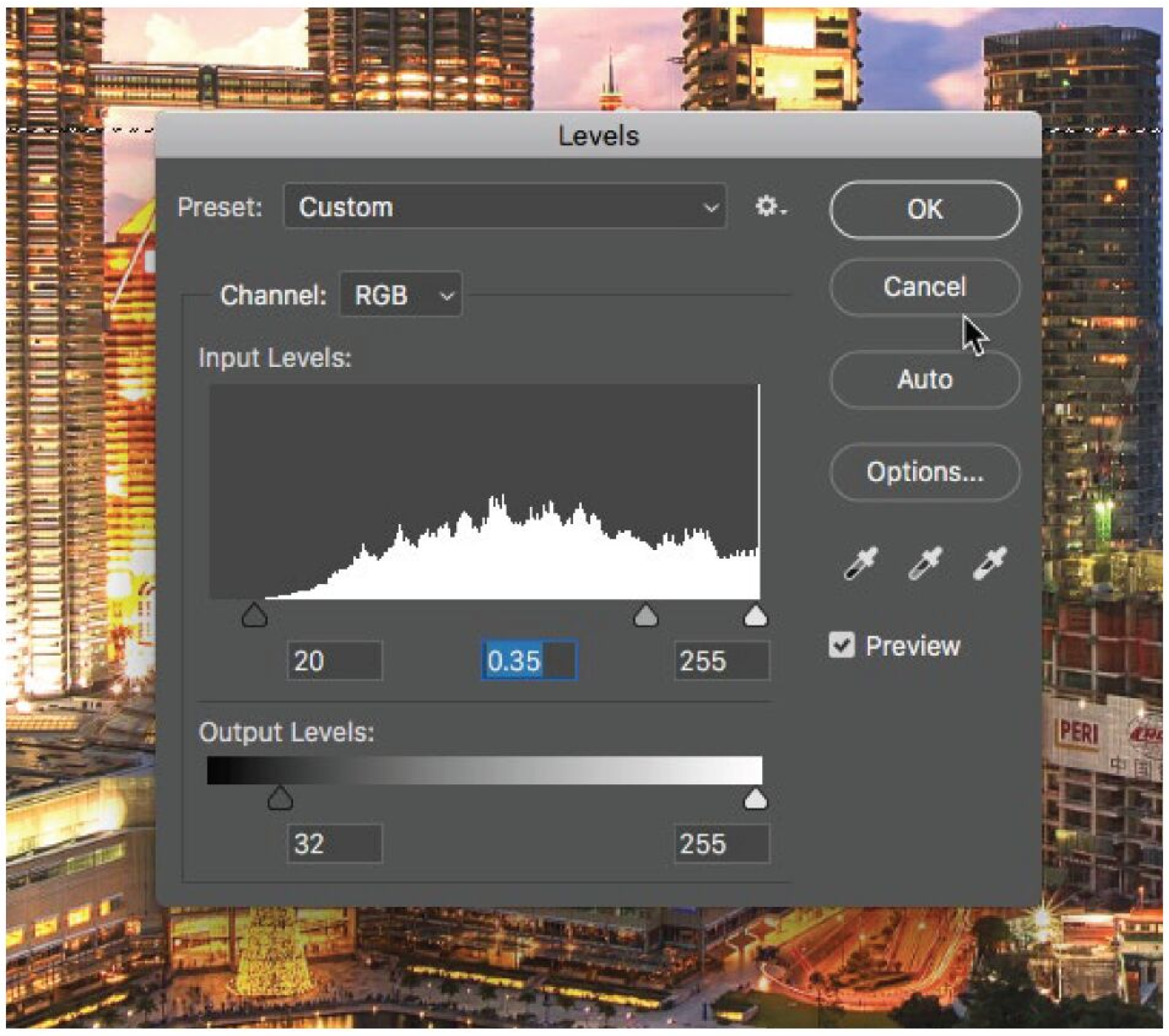


W: 2066 px
H: 2426 px
X: 0
Y: 0
Resolution: 300 pixels/inch

Gradient Mask

There are other ways to apply Quick Mask. For example it can be used with the Gradient Tool to produce gradual mask effects. Simply enter Quick Mask mode, then select the Gradient Tool. Drag a gradient fill over the area you wish to affect and when you release the Mouse button you'll see that the gradient effect is in translucent red, like the painted Quick Mask.



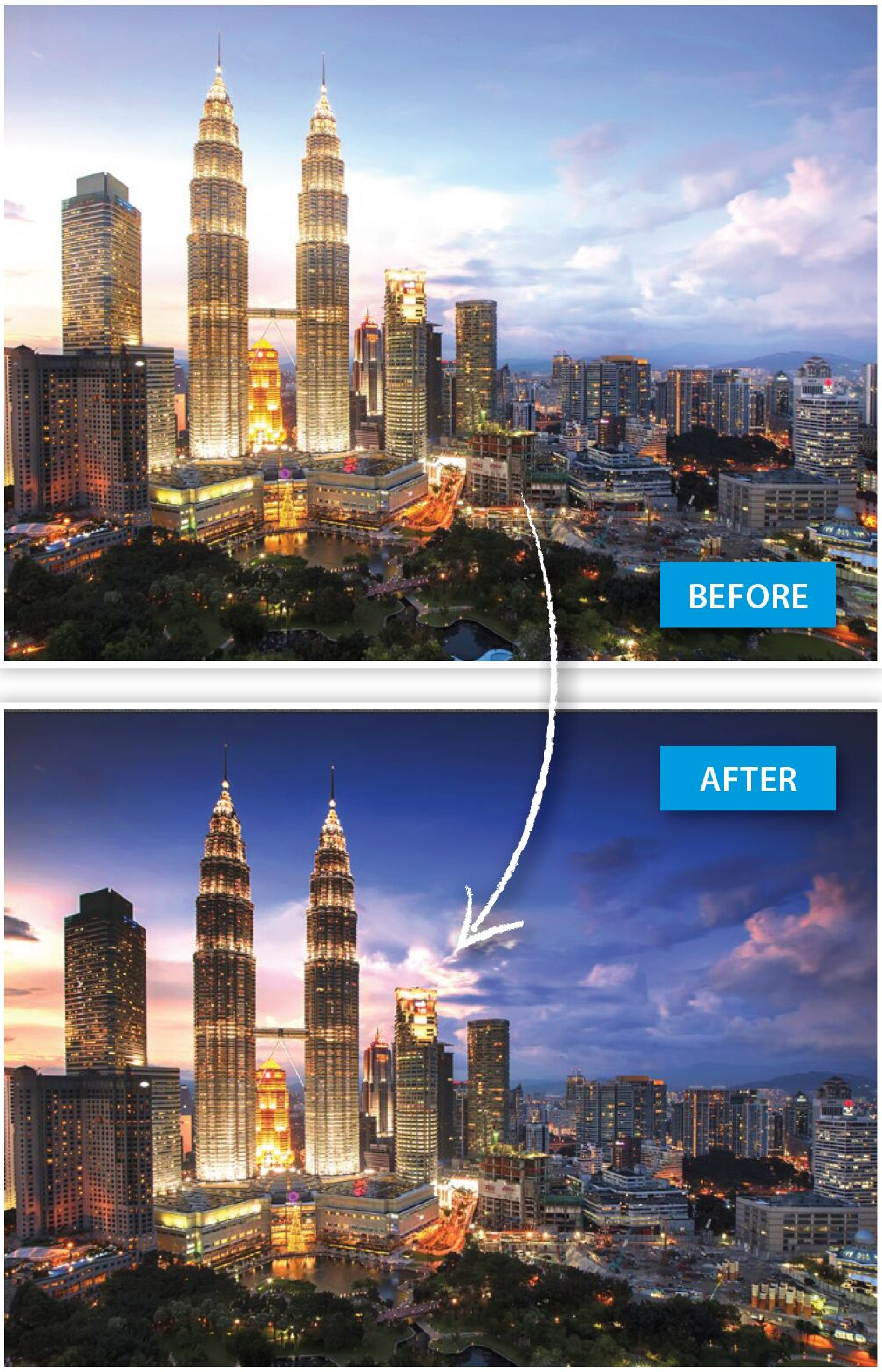


Preset: Custom

Channel: RGB

Input Levels: 20 0.35 255

Output Levels: 32 255



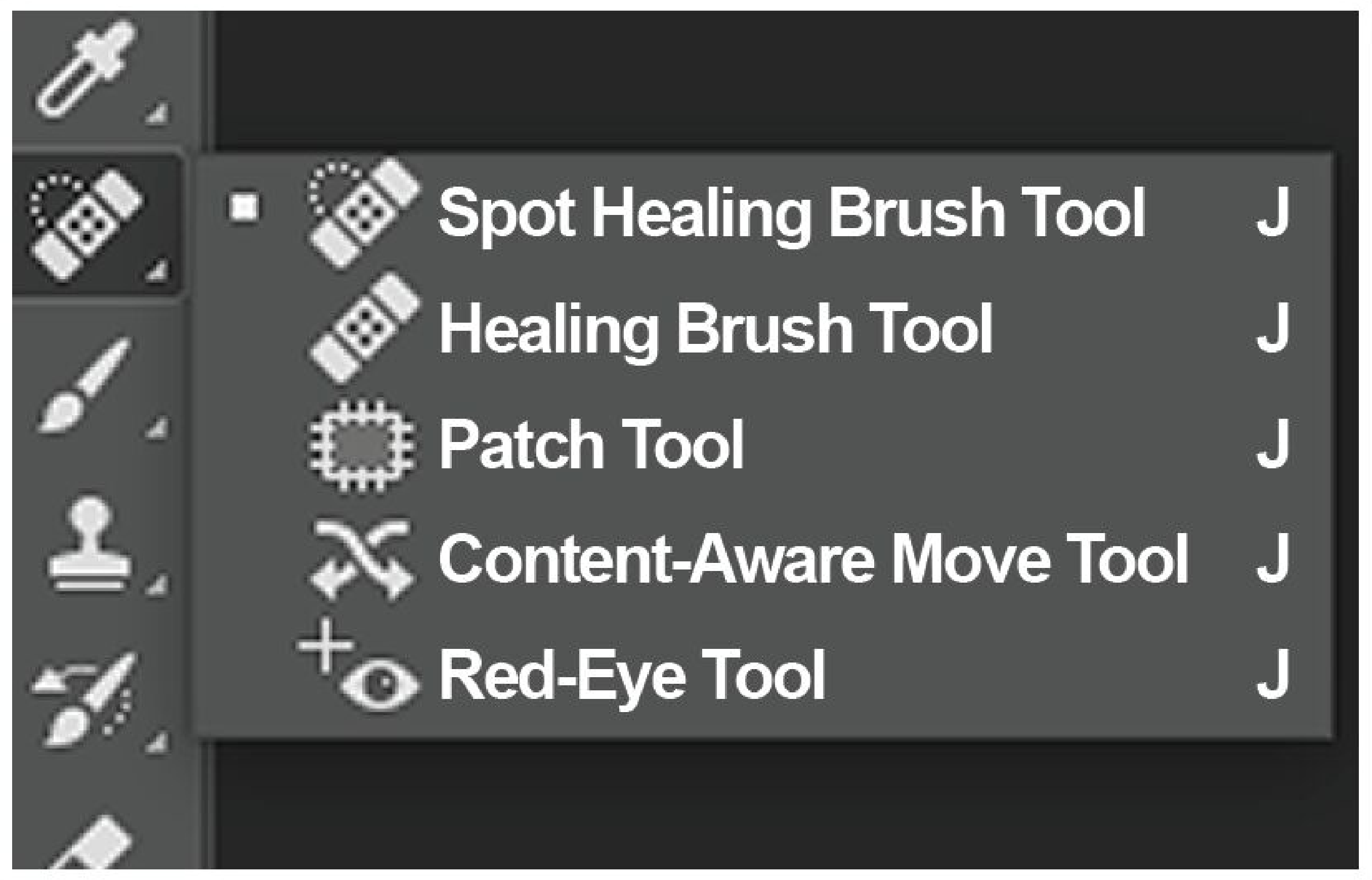
You can now use this gradient mask to produce graduated effects on an image. For instance, on this picture we can darken the sky and leave the foreground as it is by using a graduated Levels function. The gradient mask ensures a smooth transition from the full effect at the upper edge to zero effect at the lower edge of the picture.

Healing Brush Tools

Clean up minor blemishes, dust spots and stray hairs with the Healing Brush Tools

Even with a modern digital camera, your photos may have slight imperfections. Maybe it's just a stray hair or an unwelcome skin blemish in a portrait, or maybe some dust has managed to get onto your sensor, causing dark spots on your photo.

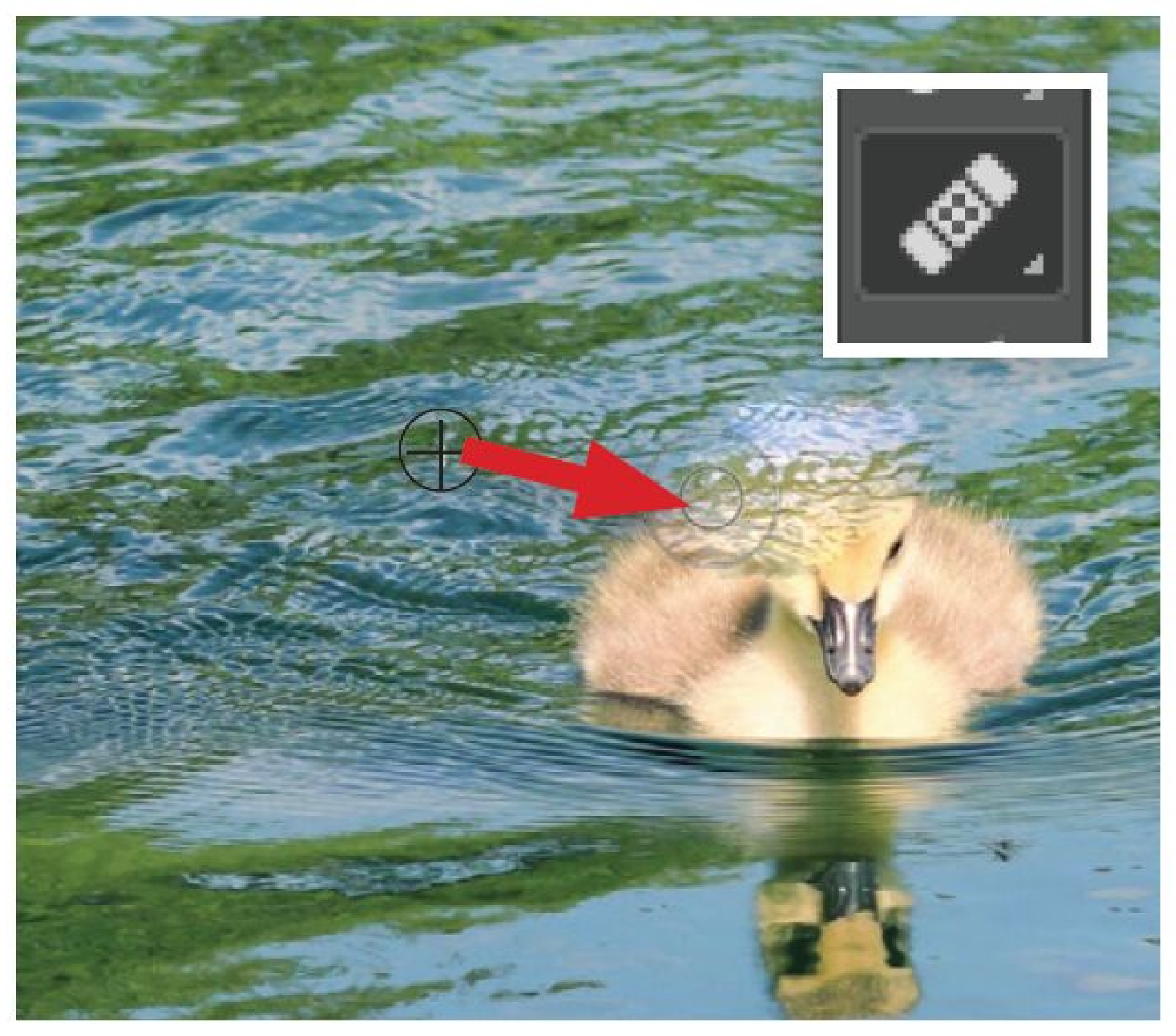
Whatever the reason, sometimes you need to remove some small features from your images and the best tools for this are the Healing Tools. There are five Healing Tools in Photoshop, which you can see if you click and hold on the Spot Healing Brush Tool icon in the tool palette.



USEFUL TIP

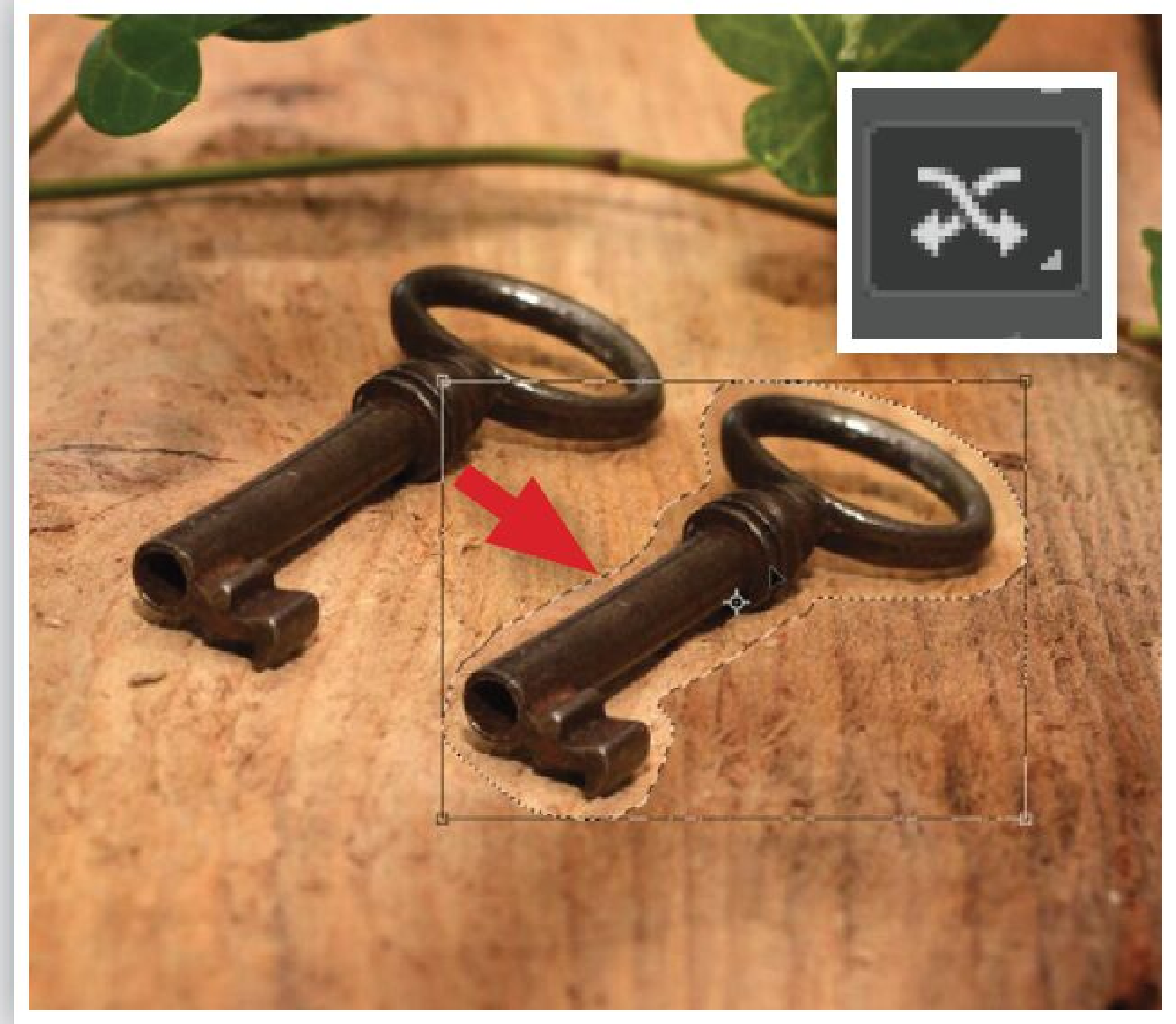
To get the best out of the healing tools, you need to work with care and not overdo the effect. The key to success is to be subtle. There is also no reason you can't use several of the healing brushes to make sure you get a perfectly healed image.

Healing Brush Tool



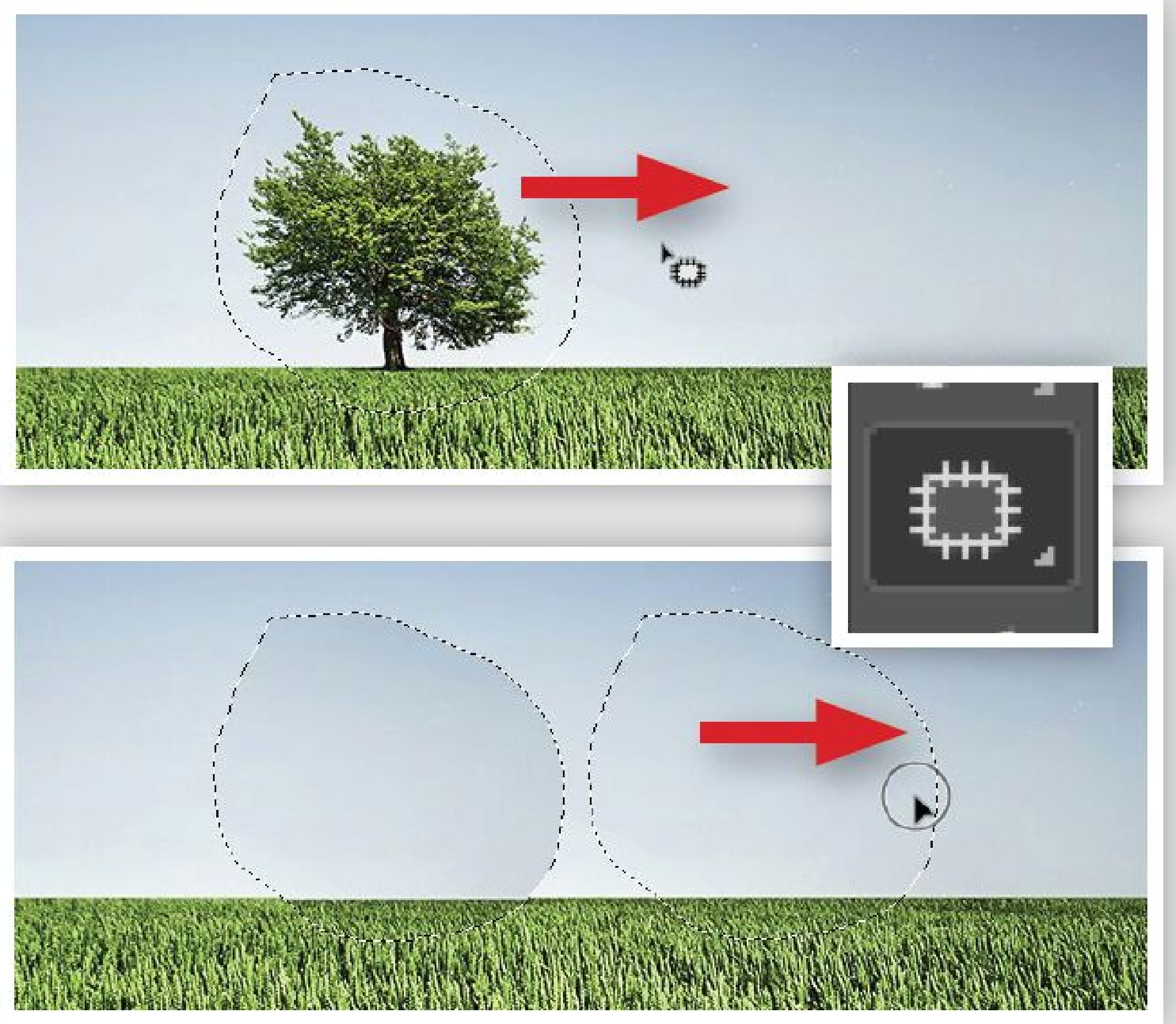
The Healing Brush is a legacy from older versions of Photoshop. It does much the same job as the Spot Healing Brush, but is rather less sophisticated. It works in much the same way as the Clone Stamp Tool. To heal a blemish, you first need to set a sample point by clicking on an area of similar texture while holding down the Alt key, then painting the sample over the blemish. As ever, when it comes to healing and cloning techniques, subtlety is the key. You may find that it might take several attempts to get a good texture that doesn't stand out as being cloned in.

Content Aware Move

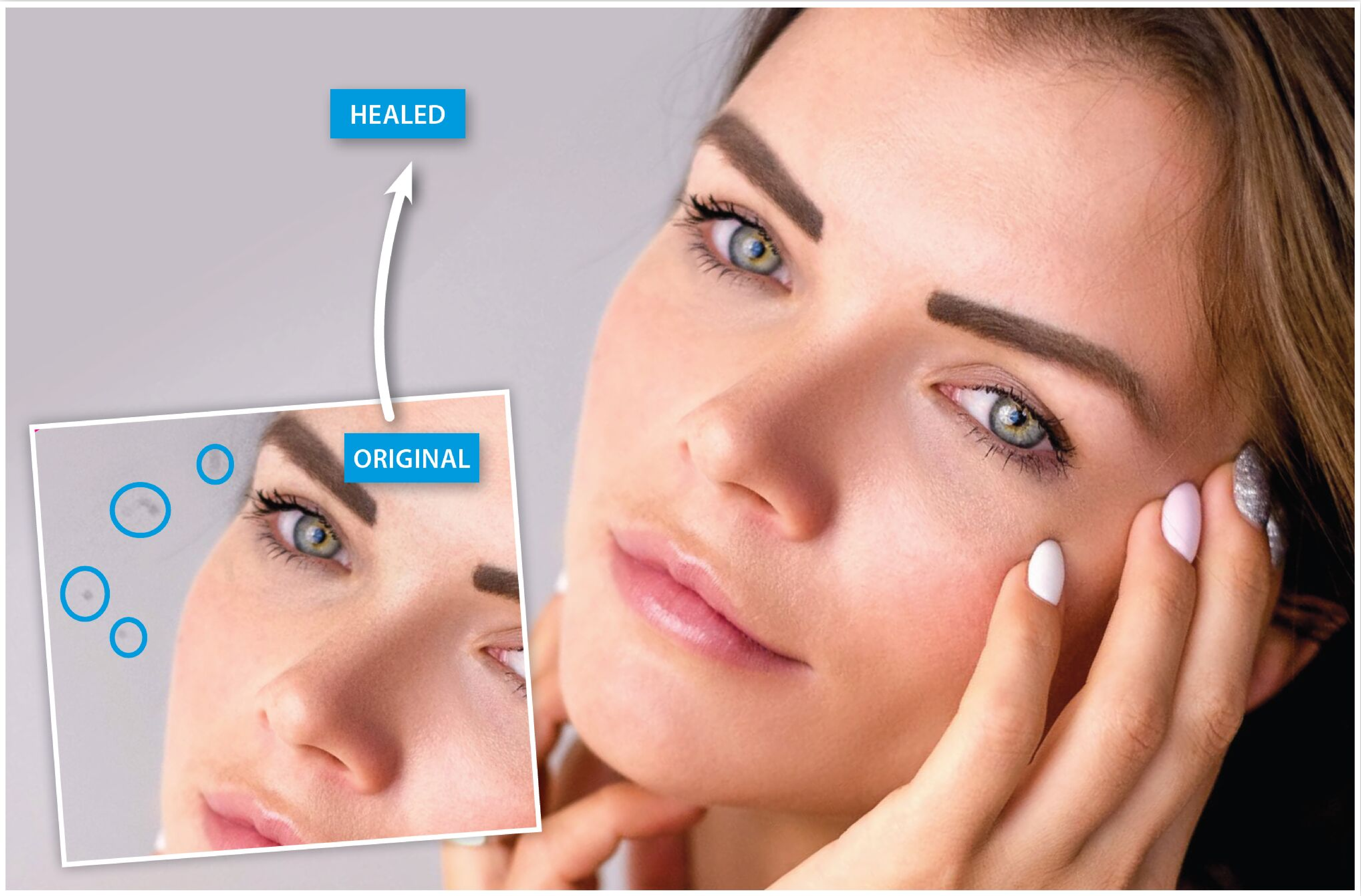


The Content Aware Move Tool was introduced in Photoshop CS6. The idea is that you can simply draw a selection around an object and then drag it to another place. The program analyses the surrounding area and fills in the source with a matching texture. In practice the Content Aware Move Tool is only useful in very specific circumstances, when the object you want to move is surrounded by a uniform texture. You will find that the more even the texture, the better the final result. Backgrounds such as grass and blue sky are much more successful candidates for this.

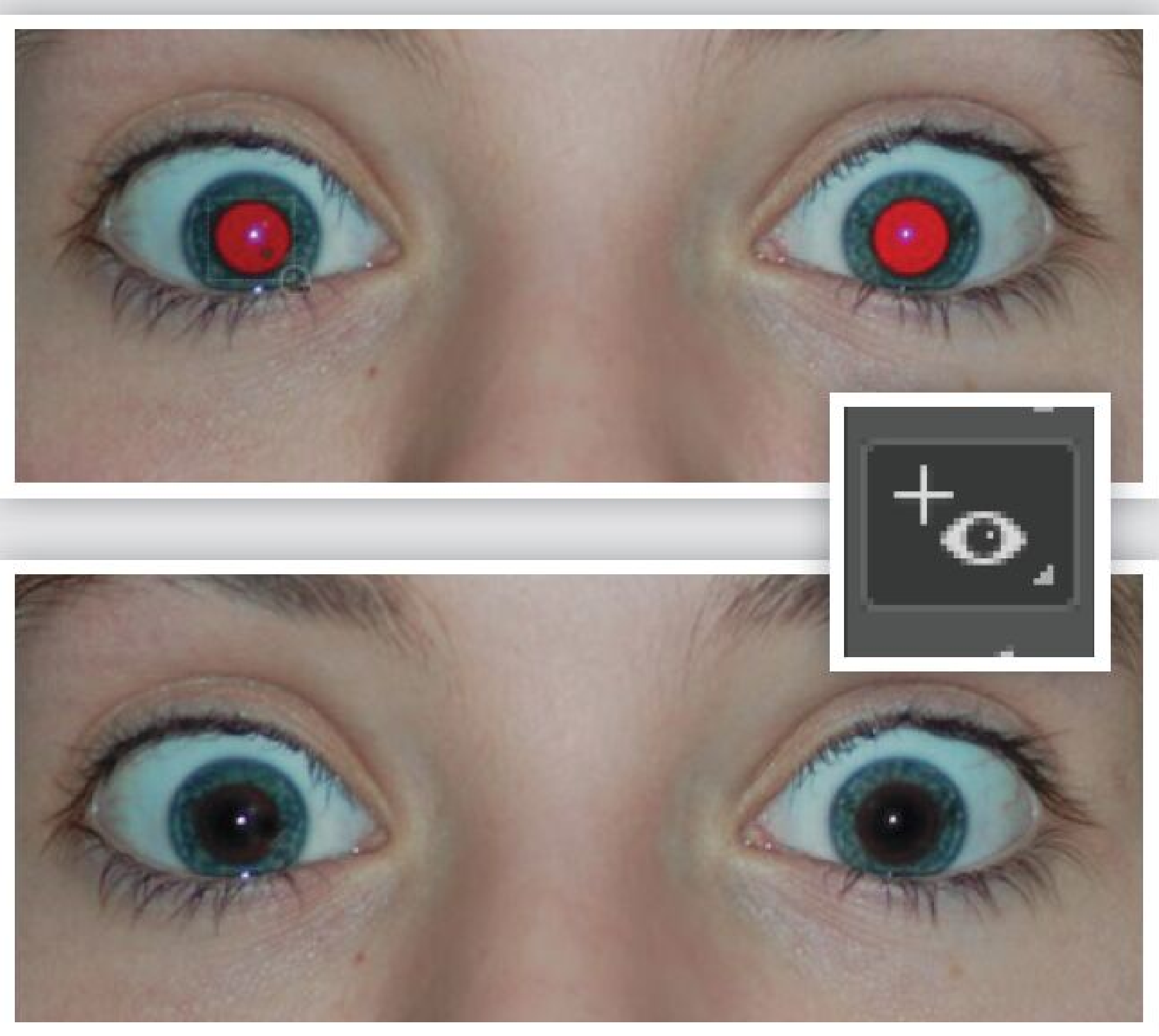
Patch Tool



The Patch Tool is used for repairing larger areas. It can be used in one of two ways; either draw around the area you want to replace and then drag the sample to an area of matching clean texture, or sample an area of clean texture and then drag it over the part you want to replace. Here, a patch of wooden floor can be used to remove some bread crumbs from the shot. As you drag the patch, it will show you a real-time overlay over your target area so you can align it as best you can to ensure a good patch.

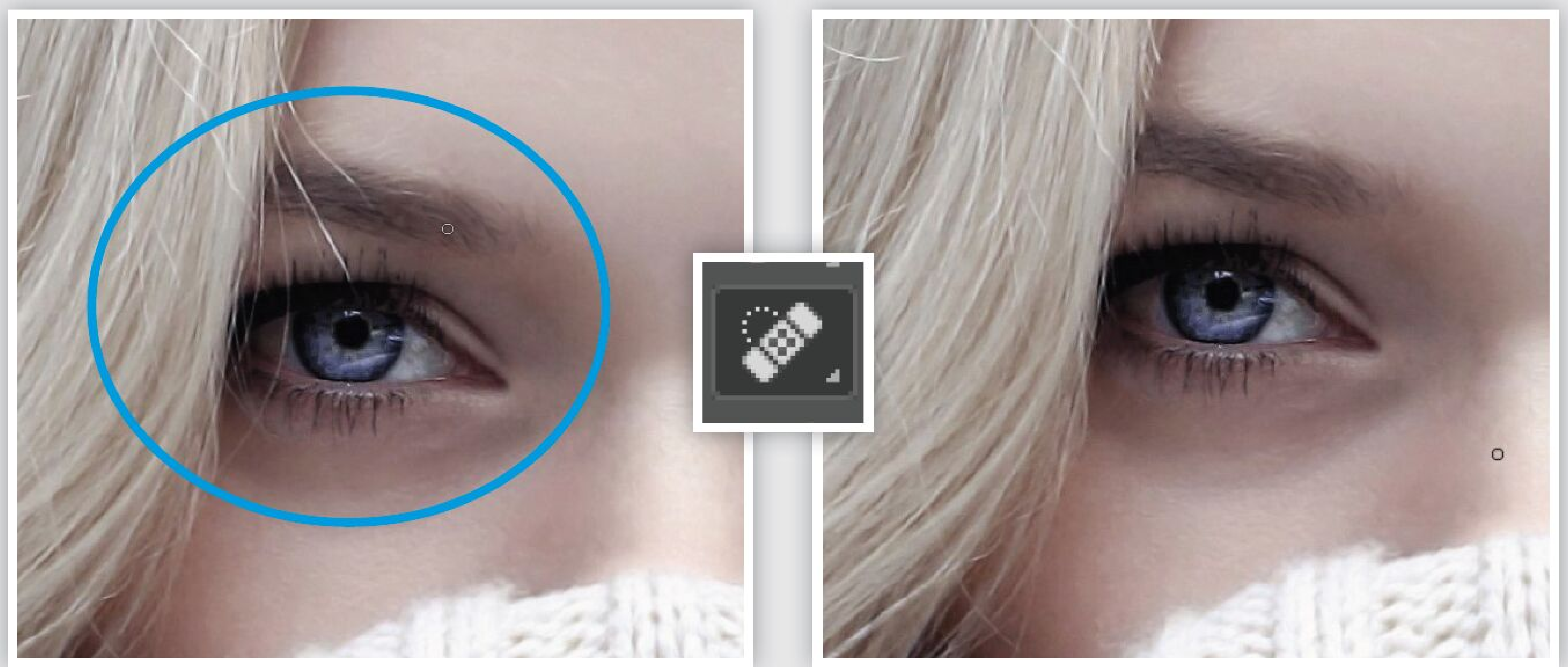


Red Eye Tool



Red Eye is caused by light from a camera flash reflecting off the blood vessels at the back of the eye when the pupil is wide open. It's possible to avoid it by proper camera technique, but if you find it in one of your portraits, Photoshop has a quick and easy tool to help remove it. Simply click on the offending redness and the tool will automatically analyse how much redness there is in the subject's eyes and remove it and replace it with a more natural-looking tone which is usually black or a very dark tone.

Spot Healing Brush Tool



For removing small objects such as dust spots and stray hairs, the Spot Healing Brush is the most useful and effective tool at your disposal. In some cases, you can even remove larger objects and people. When you use it to paint over an object, the brush samples the area around it and replaces the object with a simulation of the background. The way that it samples can be selected and the most effective option is Content Aware sampling. The brush parameters can be adjusted like any other brush.

USEFUL TIP

Camera sensors pick up dust spots over time. Use the Spot Healing Brush to remove unwanted sensor dust spots that appear on your digital images. As you can see from these examples, you can also remove larger objects as long as you have an even background behind it, otherwise the effect might look fake.

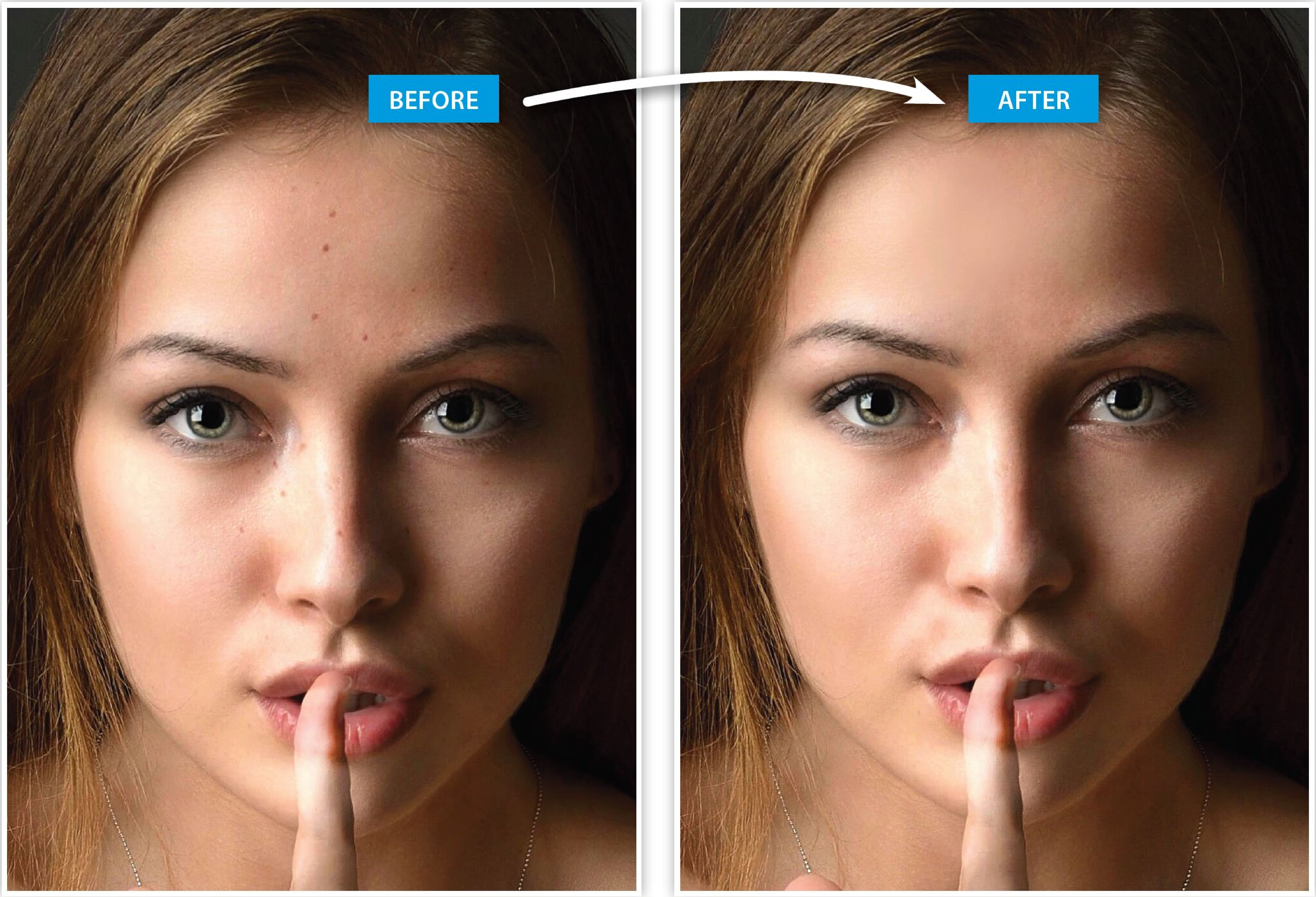
The Clone Stamp Tool

Remove unwanted elements from your photos

USEFUL TIP

Vary brush size by using the open and close square brackets keys and vary brush hardness with the curly brackets.

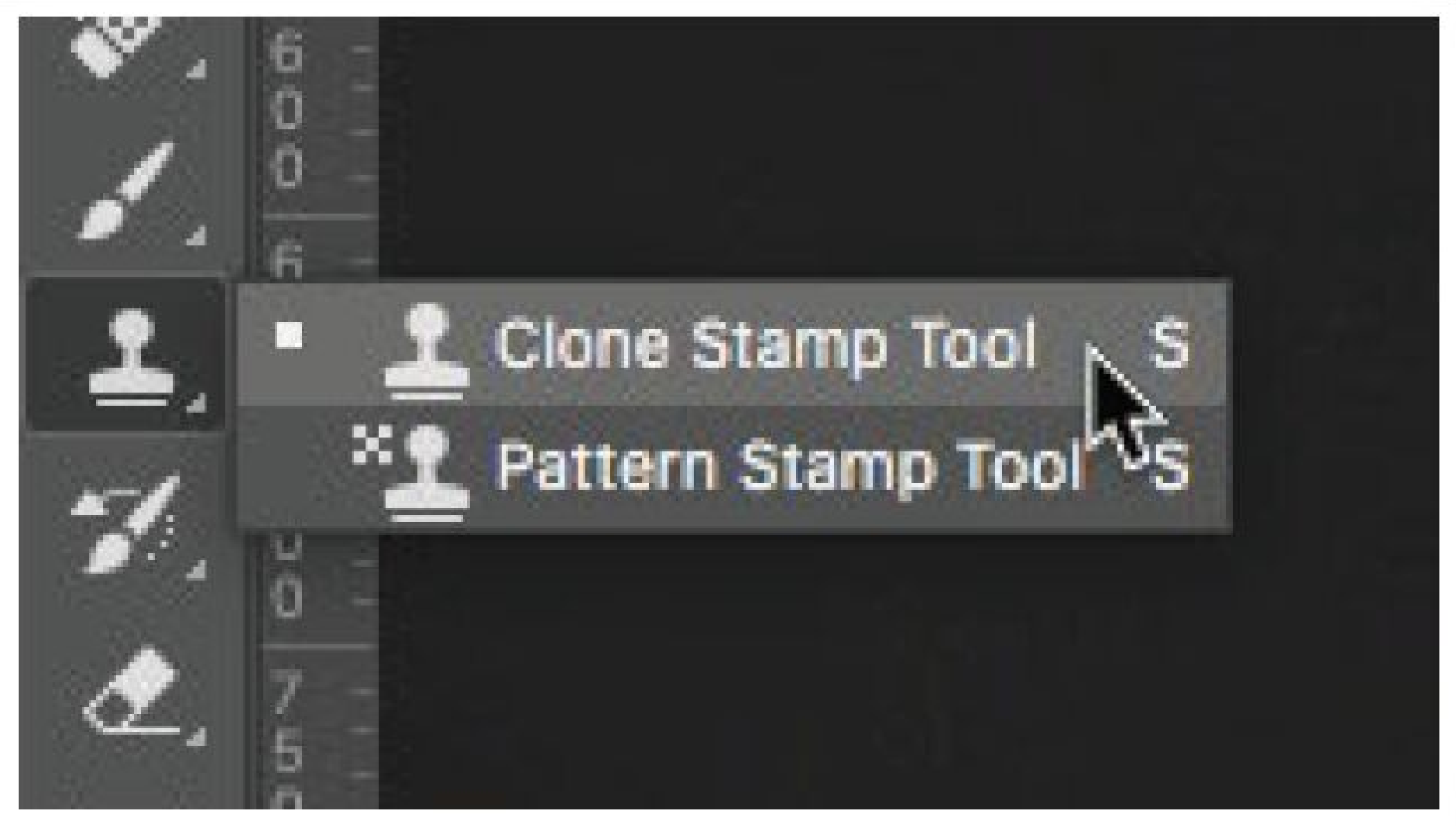
The Clone Stamp Tool (also known as the Clone Brush in some programs) is one of the most useful items in your image editing tool kit. Despite recent developments such as Photoshop's Spot Healing Tool and Content-aware fill, it is still the most precise and reliable way to retouch photographs, allowing you to remove unwanted elements such as dust spots, skin blemishes, lens flare, telephone lines and other intrusive objects from your pictures. Because the process is entirely manual it can be somewhat time-consuming, but the results are often superior to the output of the more modern automatic tools.

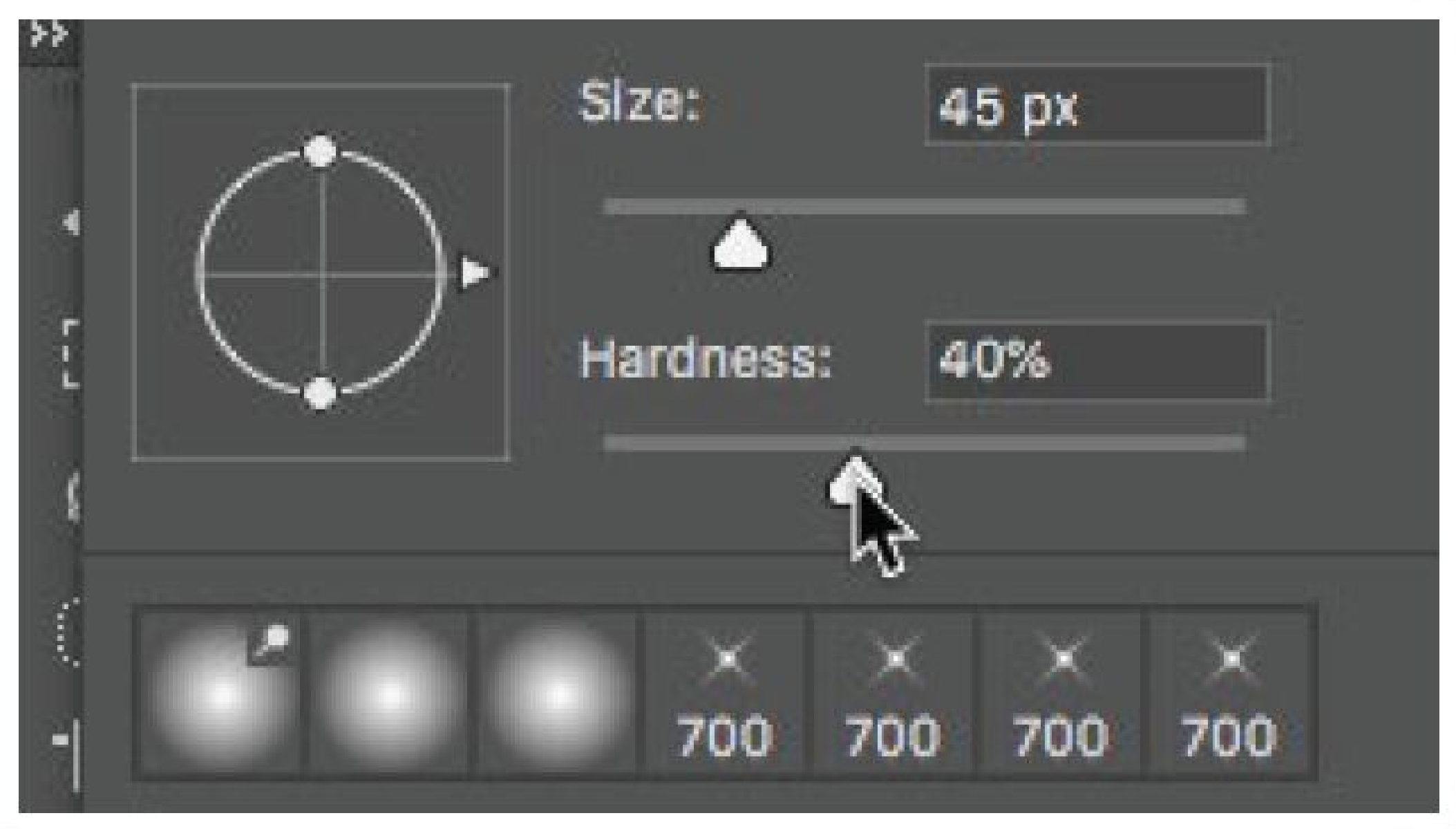


The Clone Stamp works by copying ("cloning") pixels from a selected target area and placing them over the unwanted objects. Using the Clone Stamp, it is relatively straightforward to remove even quite large unwanted objects from a photo. Our example is a close up portrait photo, taken in a studio setting, of a young girl.

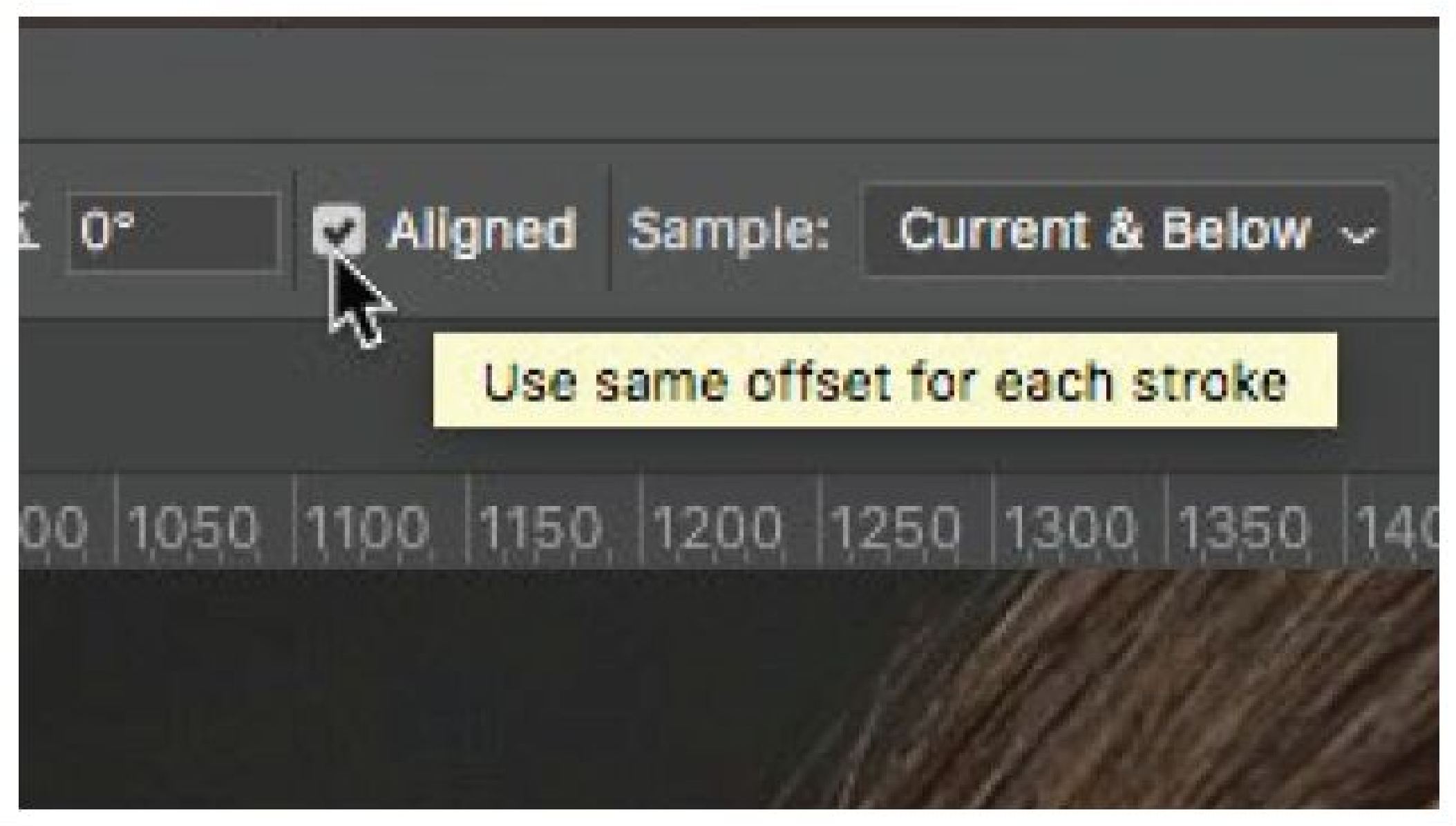
We decided it would be a good demonstration of the power of the Clone Stamp Tool to use it for one of its classic purposes. Since Photoshop has been able to do it, retouching skin is one of those techniques that were designed with the Clone Stamp Tool in mind. This girl's portrait reveals some blemishes that can be removed with this tool.

01 Go to your toolbar and select the Clone Stamp Tool (S). For the image we're working on, a brush Size of about 25 - 45 pixels will be fine. You can make the brush Hardness anywhere between 0% - 40%. We're going to start with the blemishes under her left eye.

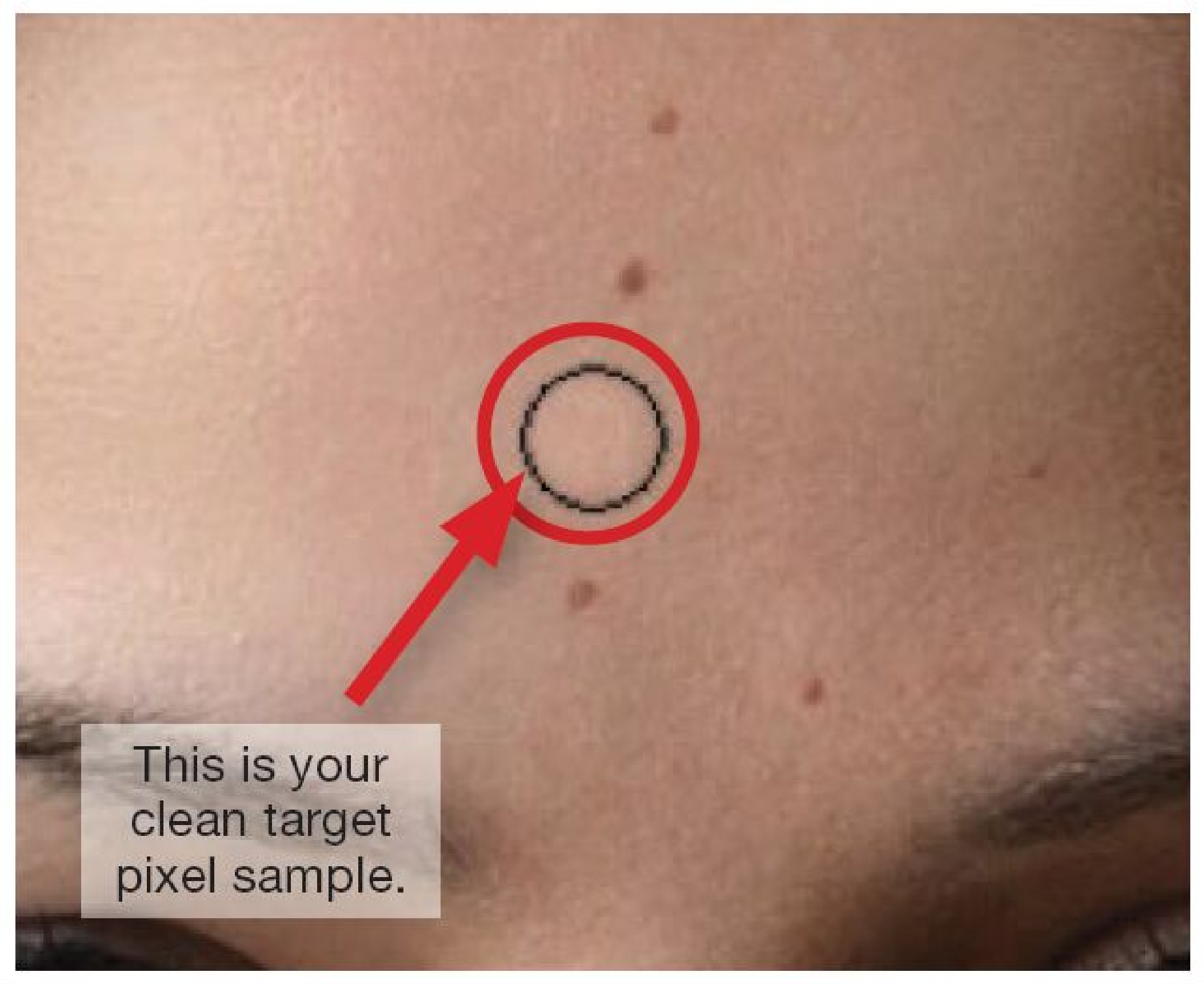



Size: 45 px
Hardness: 40%

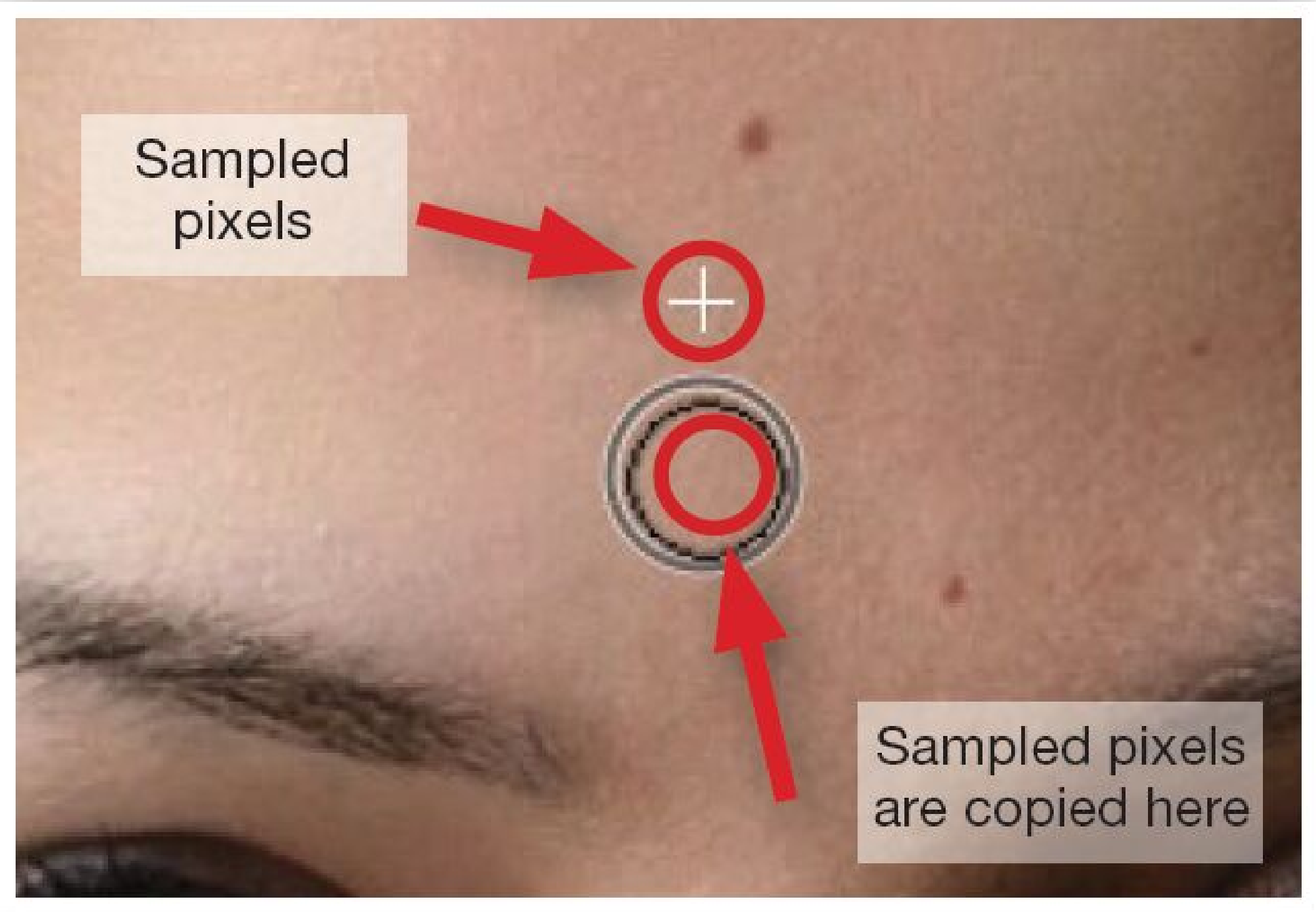
02 Make sure that you have the Aligned option ticked. This means that the sampling area of your brush moves as your brush does, otherwise you will clone the same sampled area repeatedly until you alter it.


0°
☑ Aligned
Sample: Current & Below

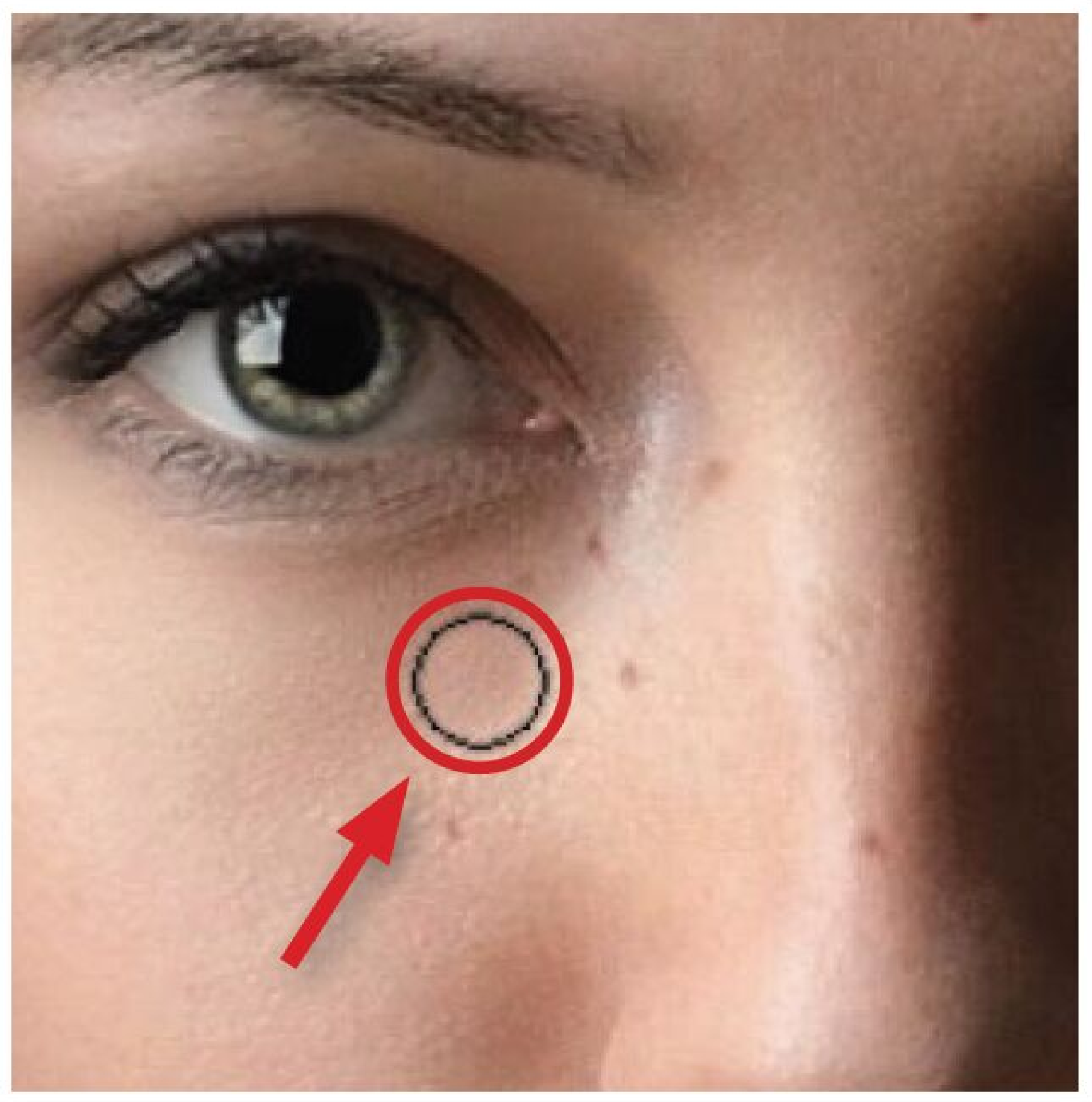
03 Find an area of clean skin next to the blemish and then press your Alt key. A small target icon will appear. Anything under this target will be your sample to be used as the starting point of the cloning. Left-click your mouse to confirm this as your sample area.


This is your clean target pixel sample.

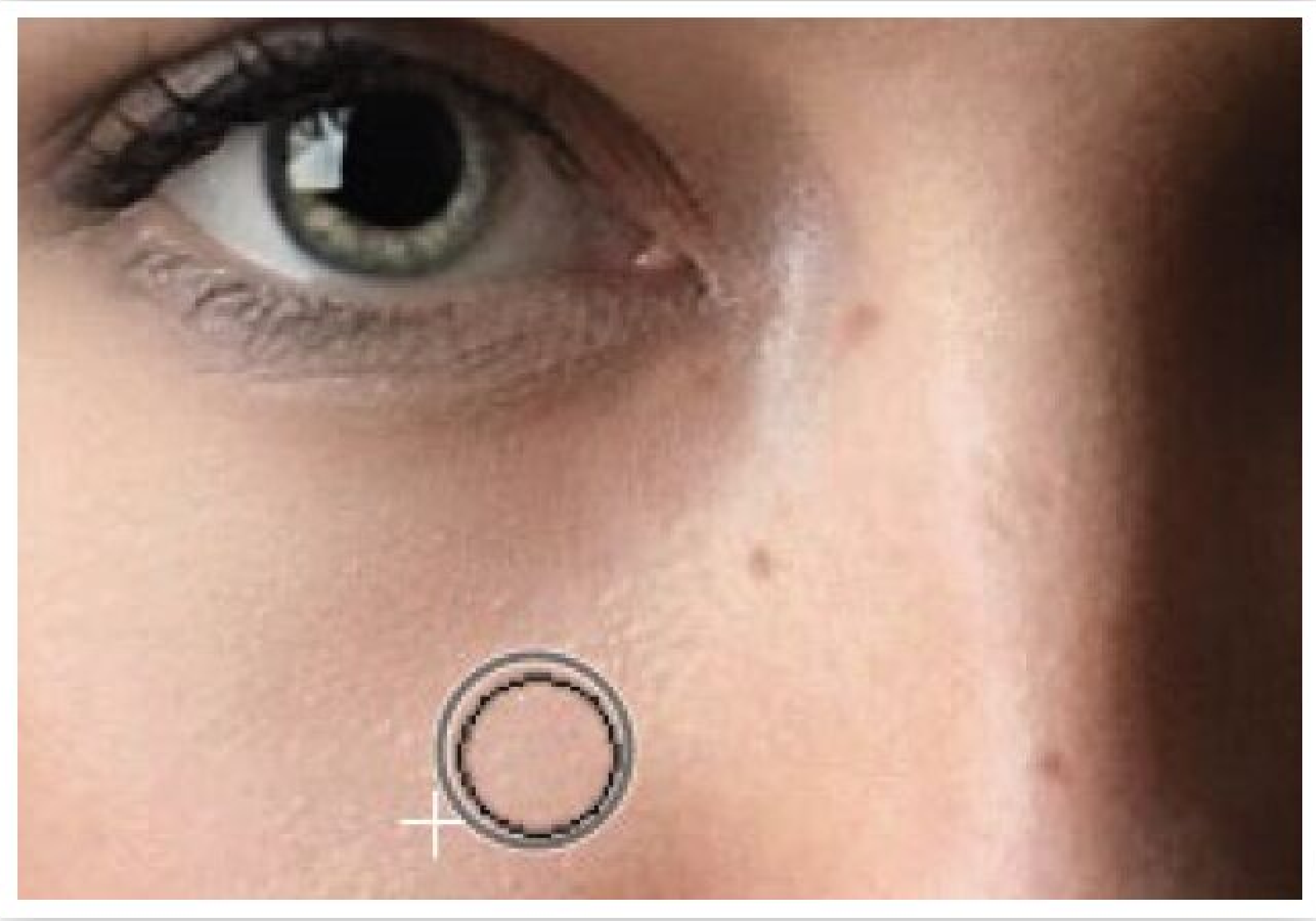
04 Now move your cursor over the top of the face and position it over the small blemish directly below the area you just sampled. It is shown as an overlay so you can see what you are about to clone on top of your figure. If you click your mouse over the blemish, the clean skin just sampled will be cloned over the top of it.


Sampled pixels
Sampled pixels are copied here

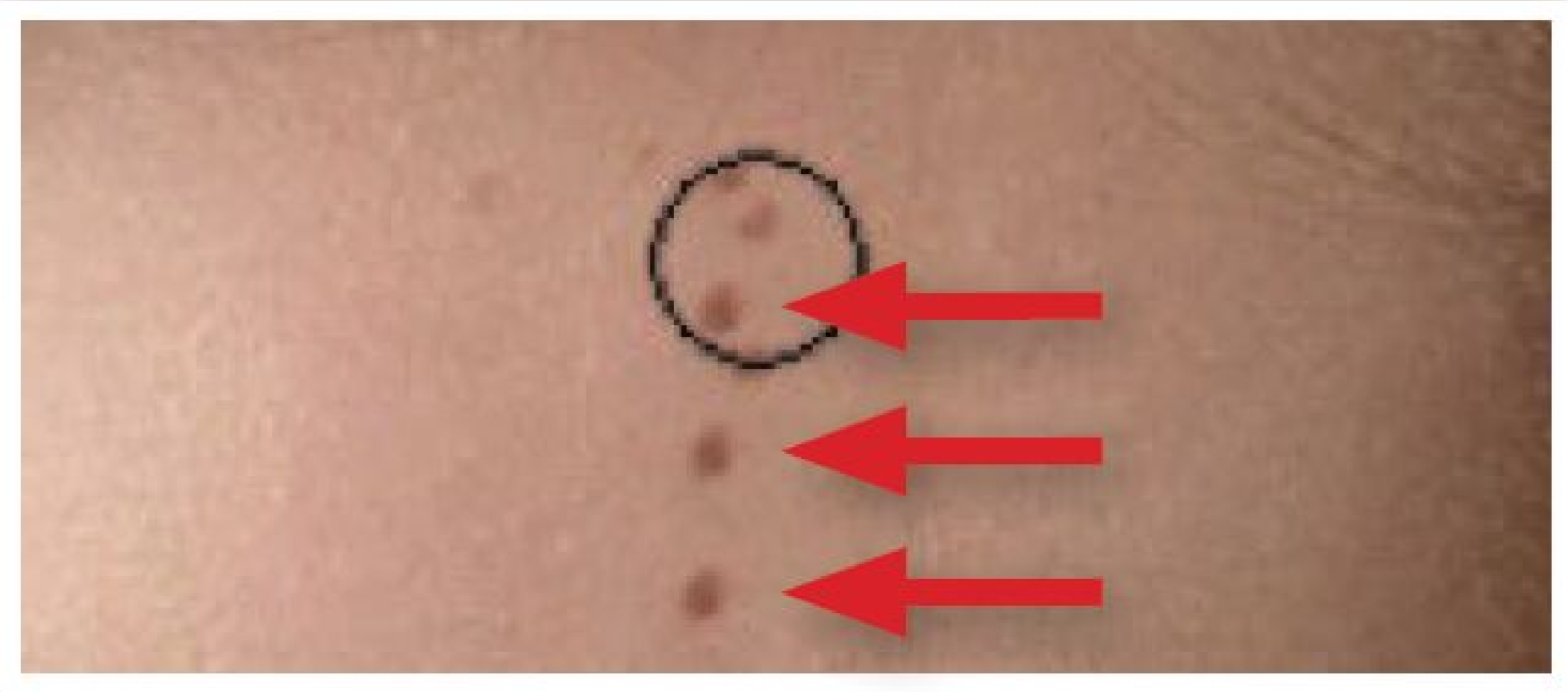
05 You can now choose another clean target sample below her left eye and clone skin from that side over the blemishes just below her eye. If you notice any repeated areas that stand out as being cloned, or differences in brightness and skin tone, you can choose a new target area and clone in some new skin to keep the pattern random.

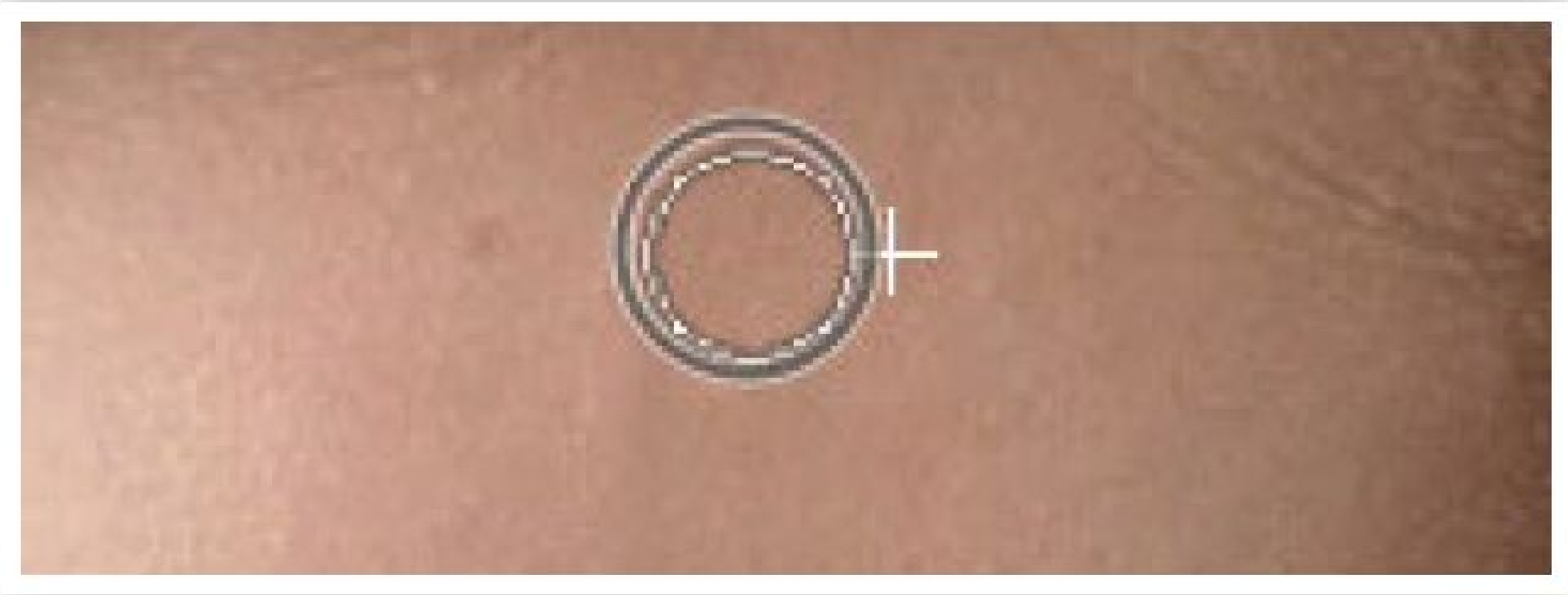


06 Now that you know how to clone a clean area of skin and use it to remove blemishes, you can start to work around the face and remove any other blemishes required..

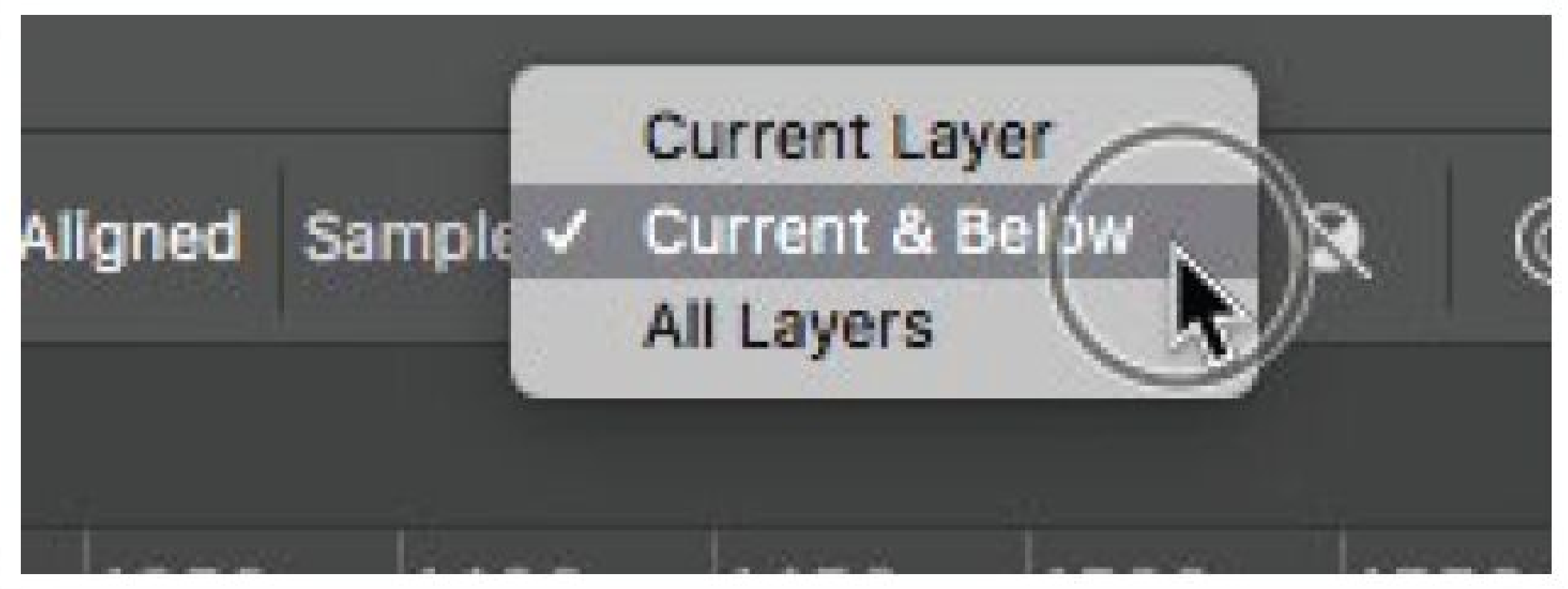


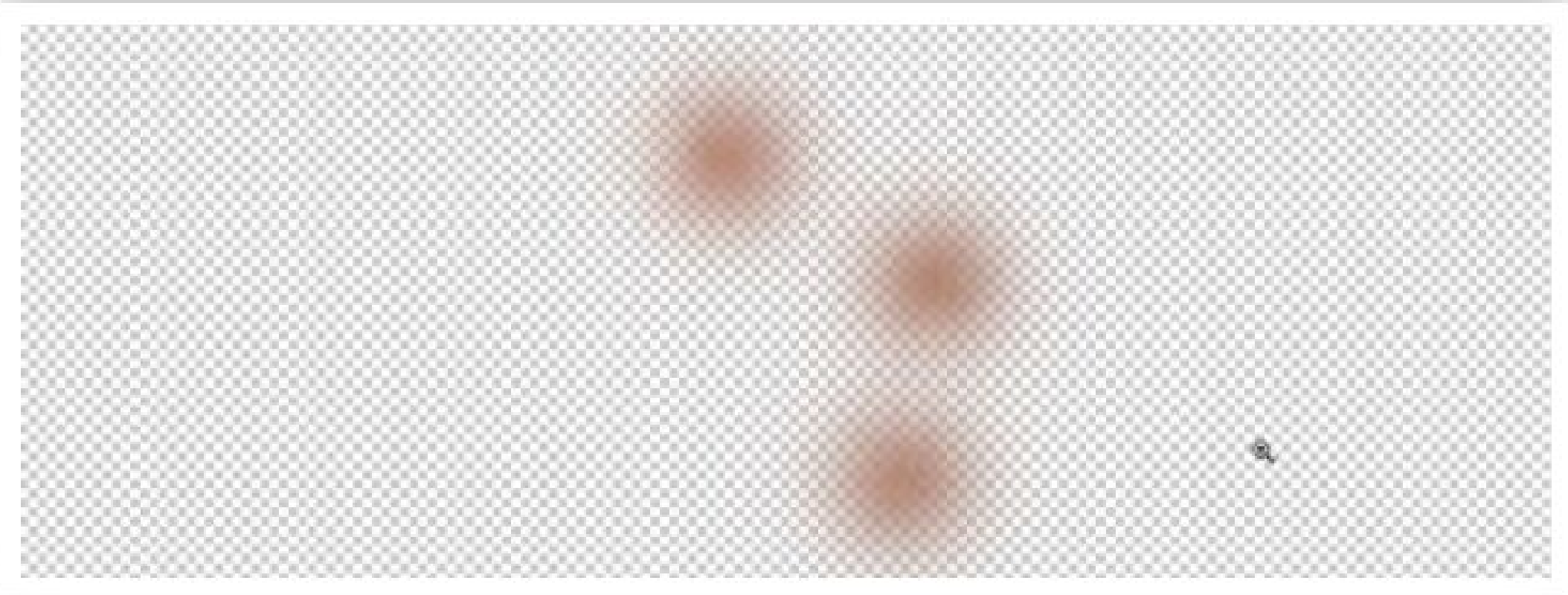
07 As you clone, watch out for any obvious repeating patterns that give the game away. These repeats appear because you have a blemish in your original sampled area which is being stamped over the target skin. Patterns like this highlight the fact that cloning has been used. If you see any patterns like this emerging, you can press Cmd + Z and undo those steps and find a clean area of skin to sample and try cloning over your target area again.





08 Another trick to help you, is to create a new transparent layer and clone your new pixels onto that. Make sure you have Current And Below selected from the Sample: menu. You can then clone onto this clean layer, preserving all the pixels underneath on the base layer.

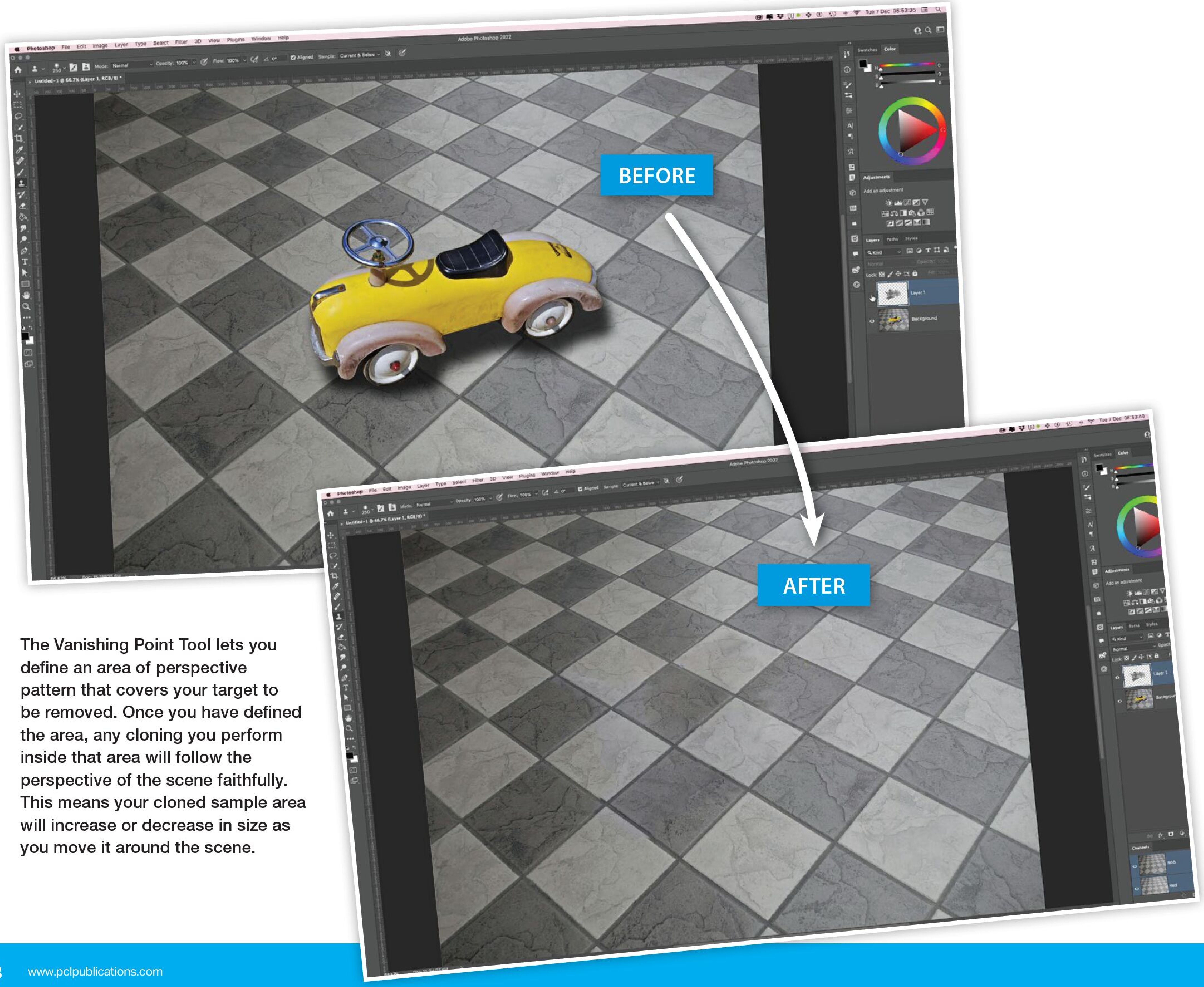

Aligned Sample ✓ Current & Below



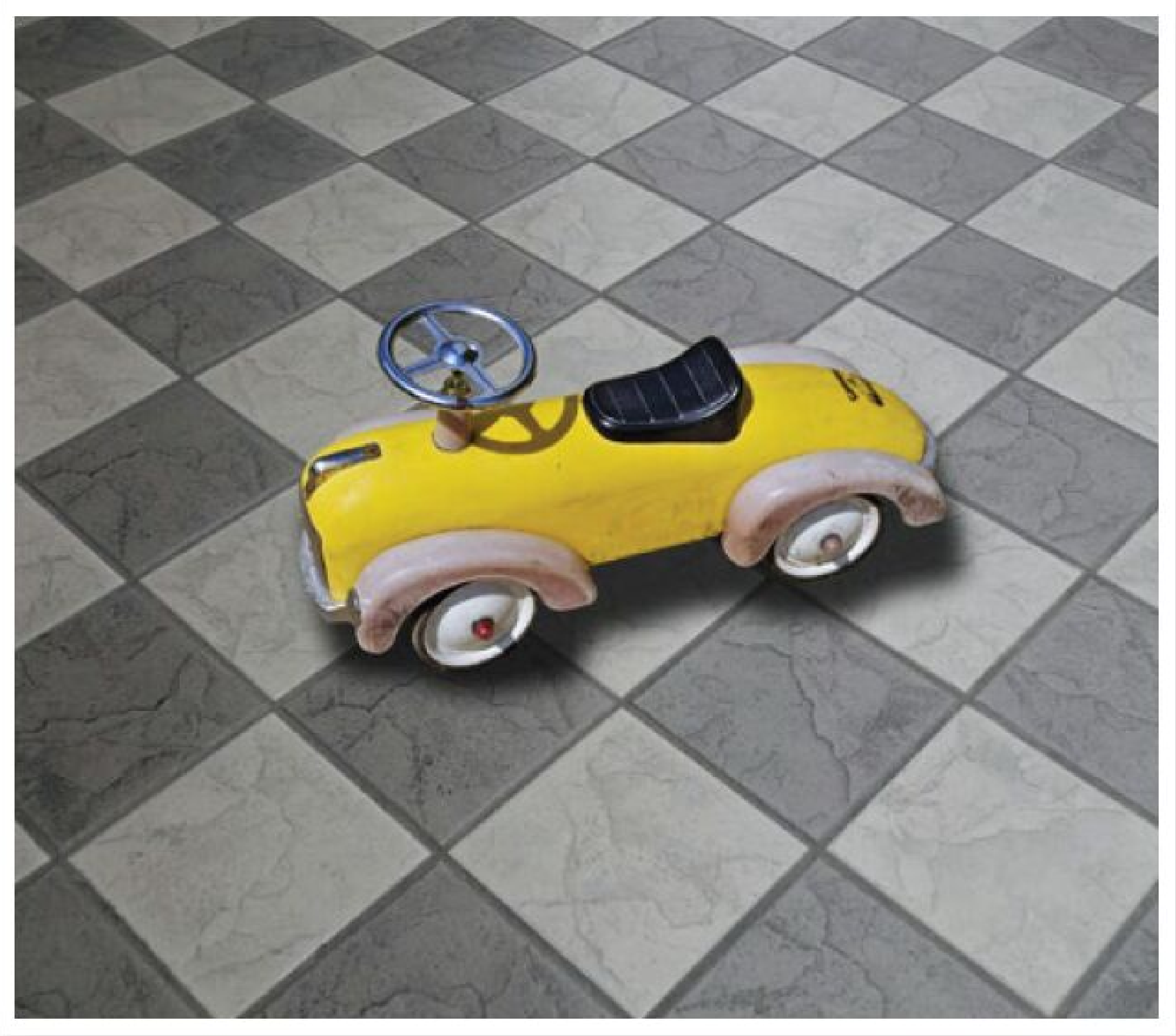
Perspective Cloning

Clone out items accurately using the Vanishing Point tool

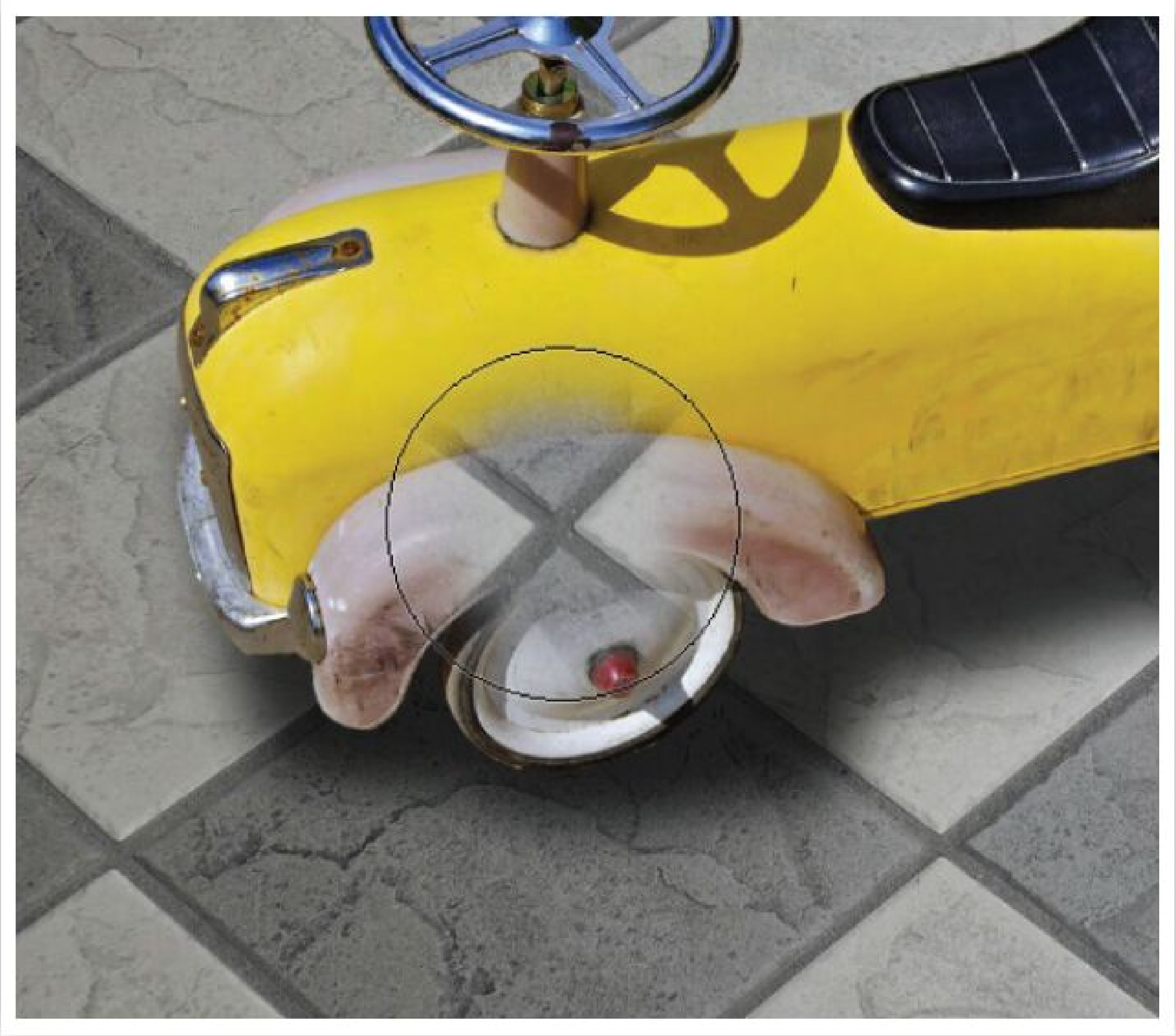
The Clone Stamp Tool is very powerful as we've already seen, but on its own, it does have its limitations. The shortcomings of the Clone Stamp Tool are most obvious when trying to clone out an item that is on top of a very regular pattern with a perspective. The repeating pattern of a brick wall or tiled floor looked at from an angle will appear to recede into the distance and get smaller, or get closer and larger. The Clone Stamp Tool cannot match this perspective on its own and your cloning will look pretty bad. It's ok though. Photoshop has just the tool to help with this tricky form of cloning. It can be found under the Filter menu and is called the Vanishing Point Tool.



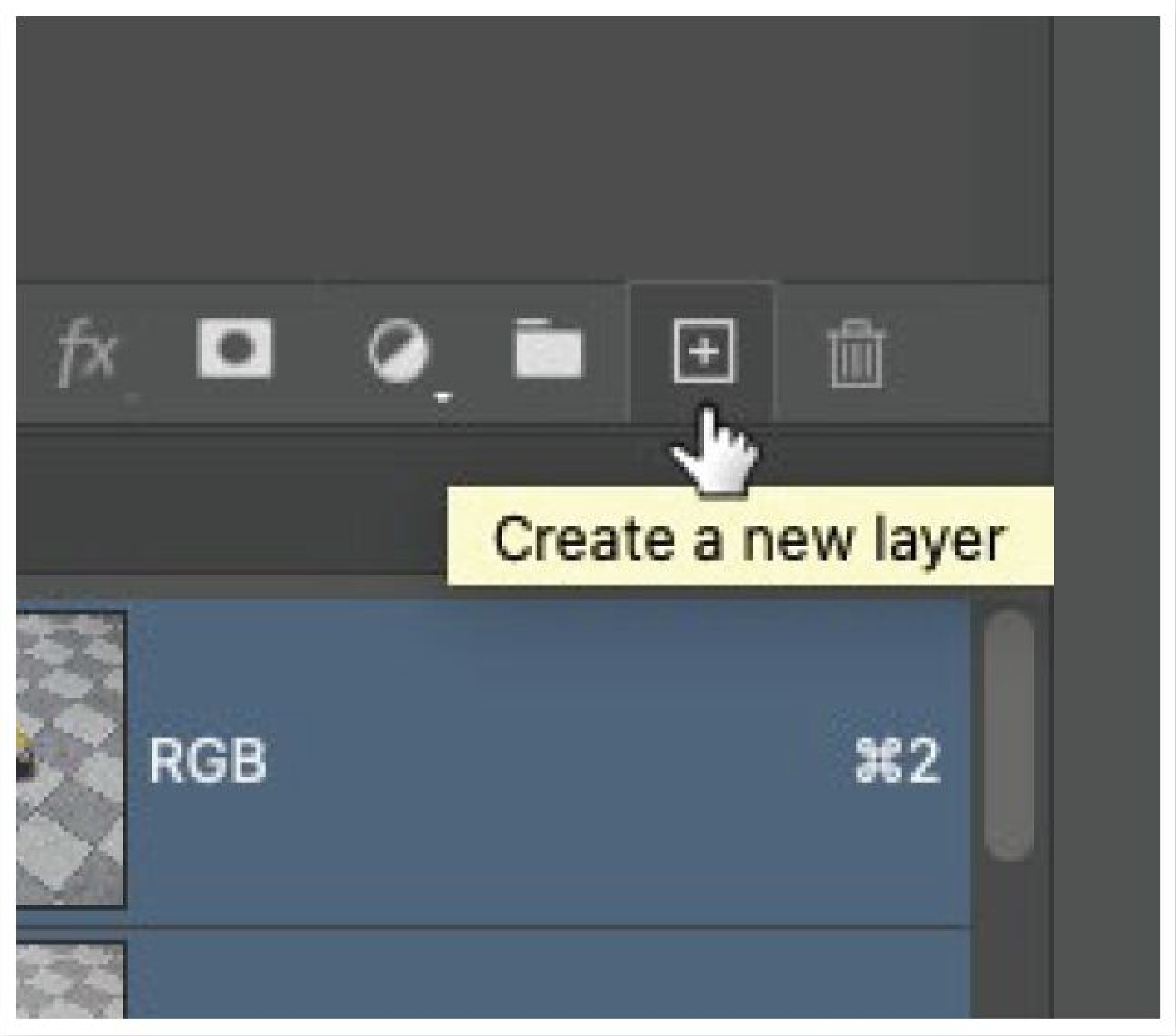
The Vanishing Point Tool lets you define an area of perspective pattern that covers your target to be removed. Once you have defined the area, any cloning you perform inside that area will follow the perspective of the scene faithfully. This means your cloned sample area will increase or decrease in size as you move it around the scene.



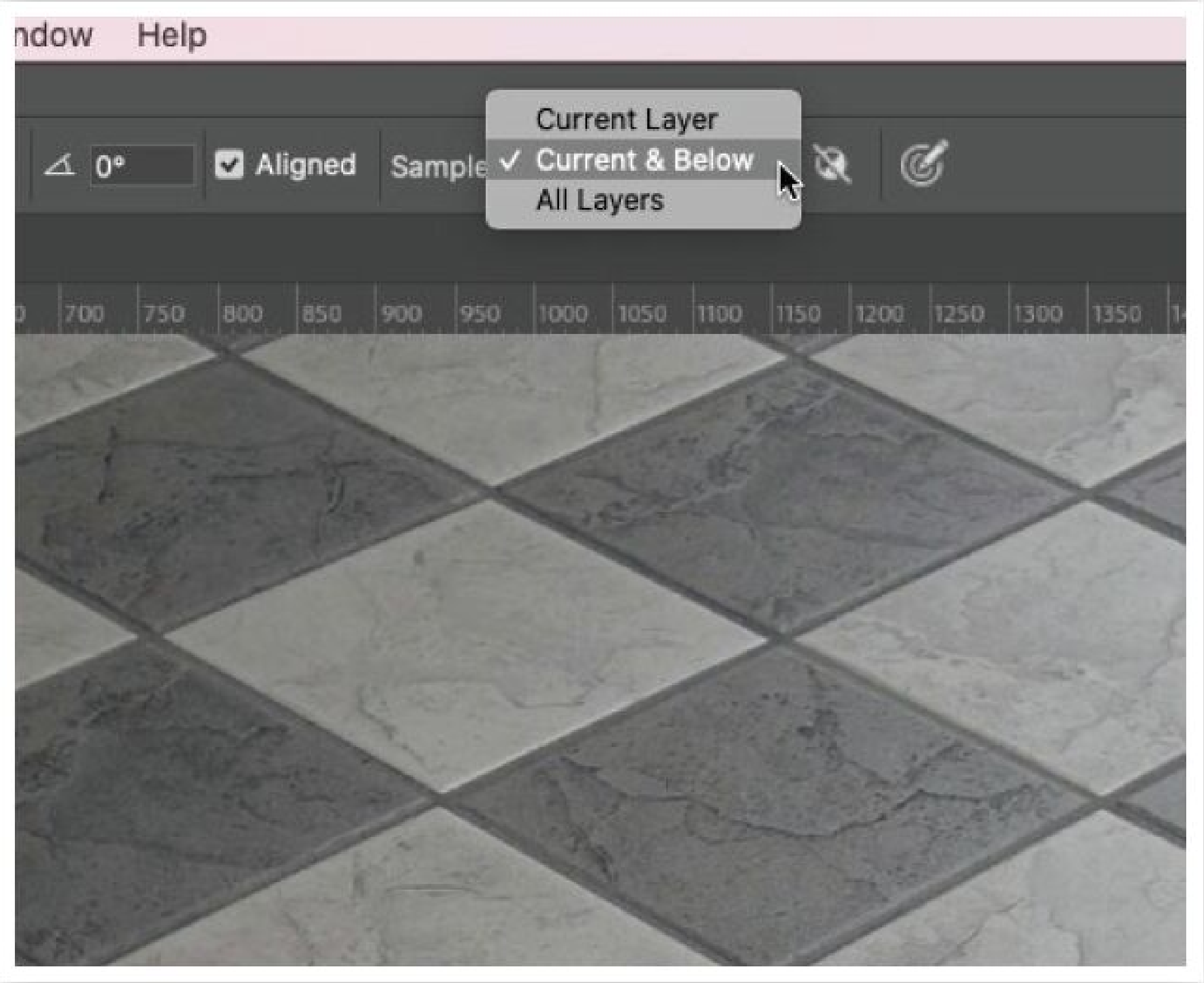
01 We've created a tricky cloning challenge for ourselves. We have a toy car on a tiled floor background. The challenge is going to be to completely remove the toy car and maintain a good tiled pattern and hopefully keep the relative brightness of the tiles intact.



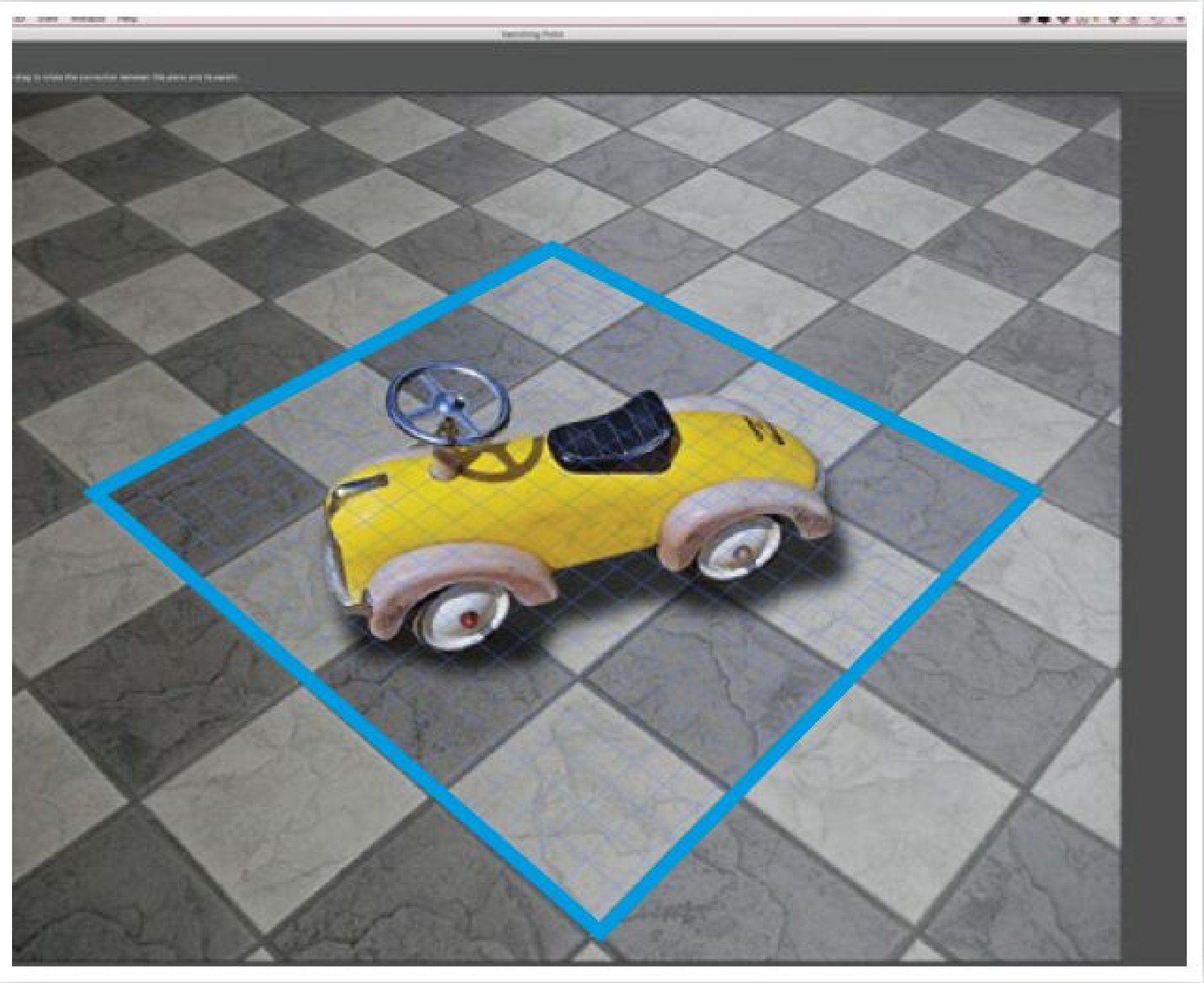
02 In this example, just using the Clone Stamp Tool straight out of the box is going to give you problems. If you sample a clean area of tiled floor near the car and position your cursor over the parts of the car you want to remove, you will see straight away that they won't line up.



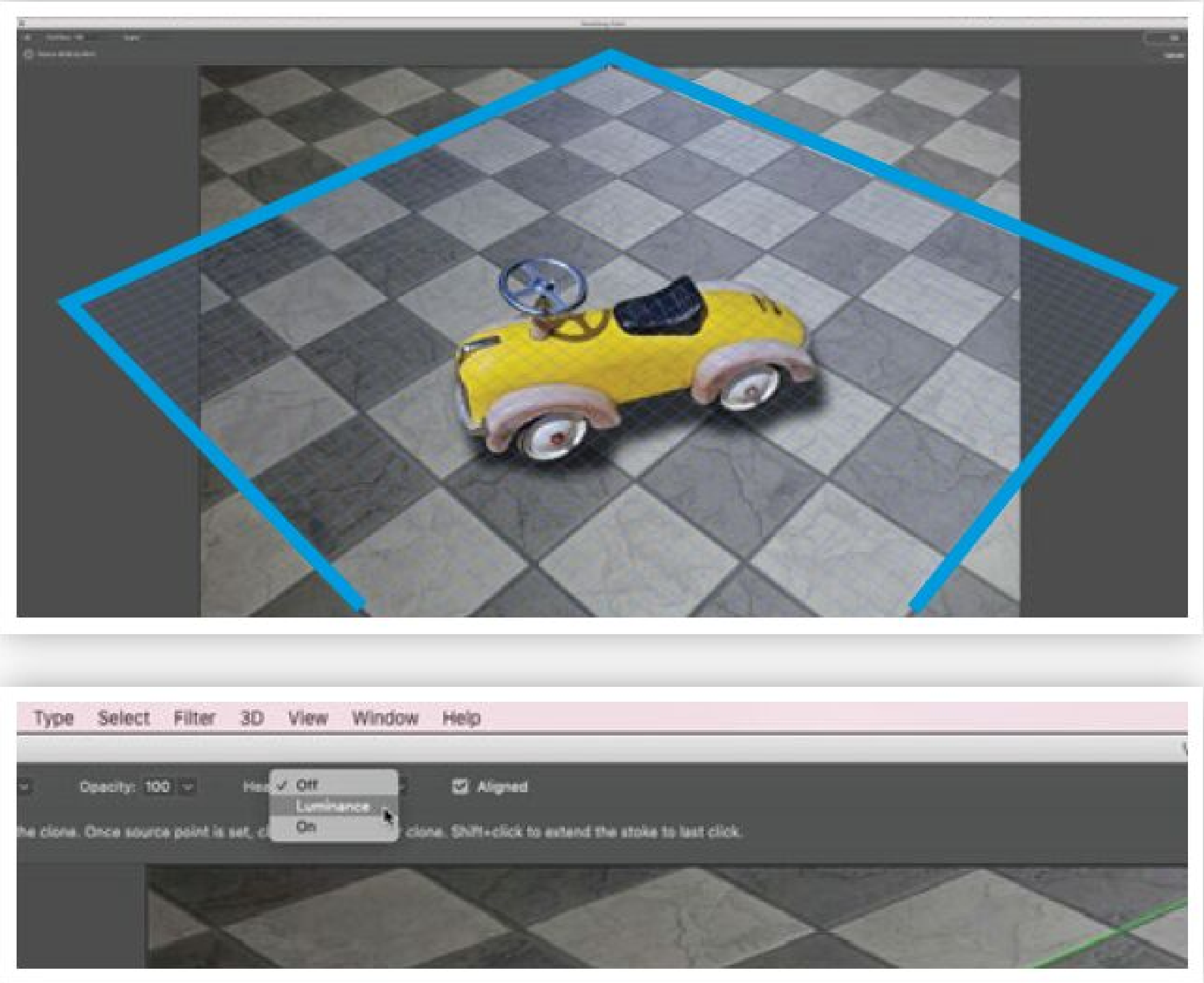
03 We are going to clone out the car, but rather than destroy the original pixel data, we are going to clone onto a new layer so we can do it as a non-destructive edit. Go to the layers palette and click on the Create a New Layer button. The new layer appears above the base image.



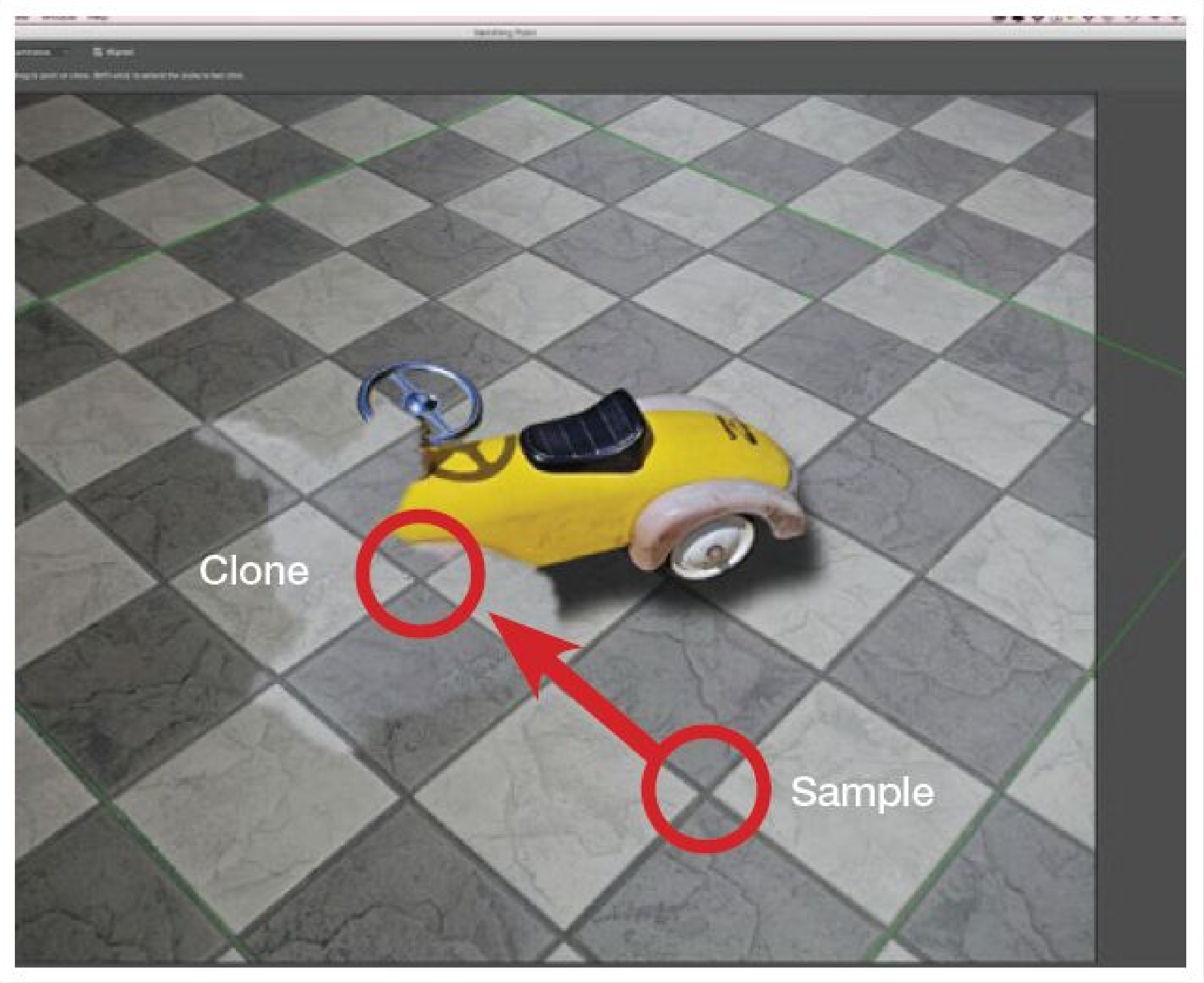
04 With the new layer selected, make sure that in the menu bar, the Sample option is set to Current & Below. This means that data will be cloned from the base image and placed on the layer above so as not to destroy the original image that you started with.



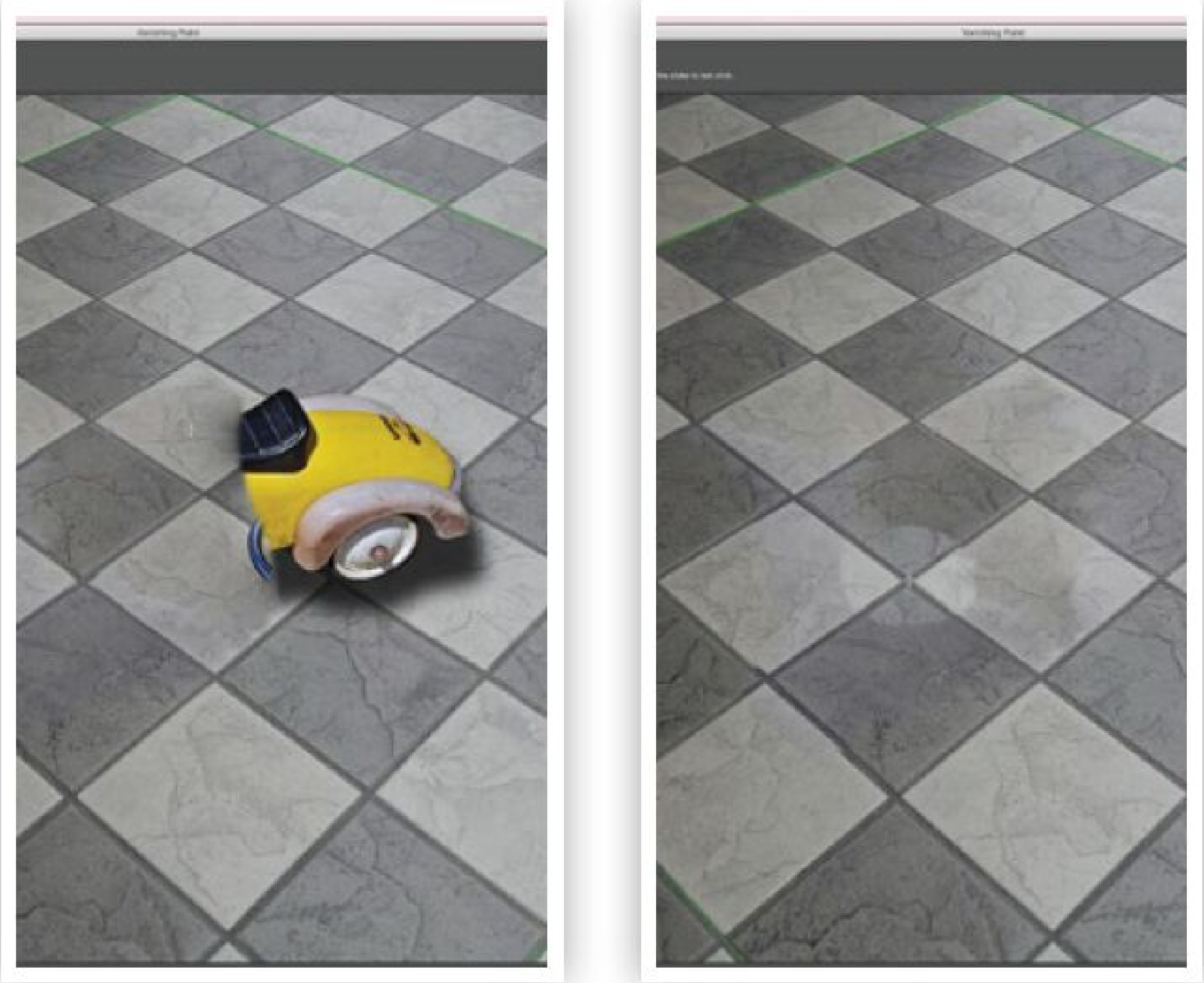
05 Keep the new layer active and choose Filter > Vanishing Point from the menu. This opens the Vanishing Point panel. Next, click on an area that covers the car and adheres to the corners of the tiles. This area you've defined will control how the cloned samples match the perspective.



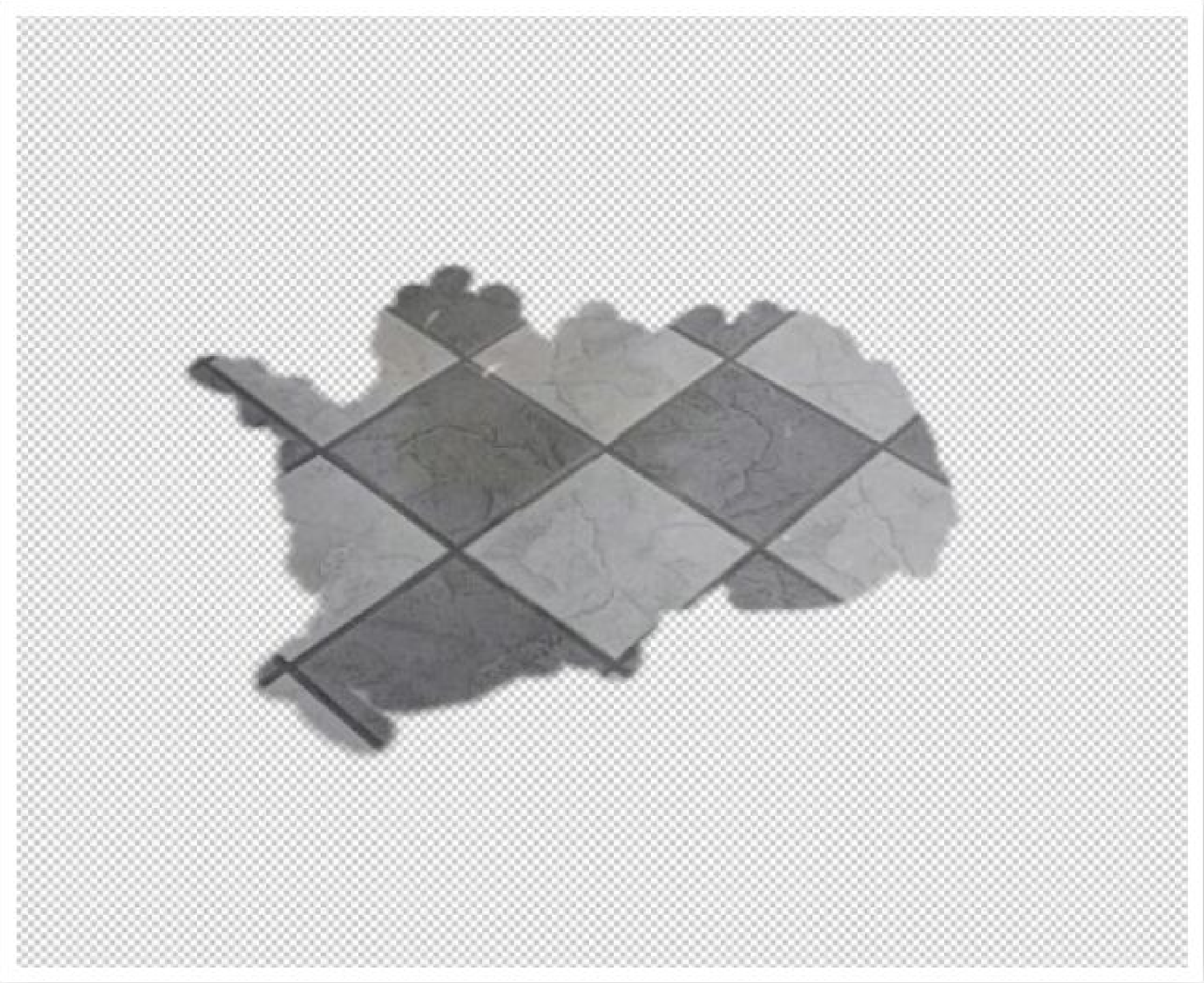
06 Click and drag the box you've created and make it bigger to give you more sampling areas to work with. This is fine as it will follow the perspective of the tiled floor precisely. Before you start cloning, make sure Heal is set to Luminance so cloned areas are the correct brightness.



07 Click the Stamp Tool (S) and Alt + Left-Click to define a clean area of tile. Use a point where tiles intersect and then move your cursor over a corresponding area of tile with the car on it and start to paint out the car. The Luminance Heal will make the cloned areas the correct brightness.



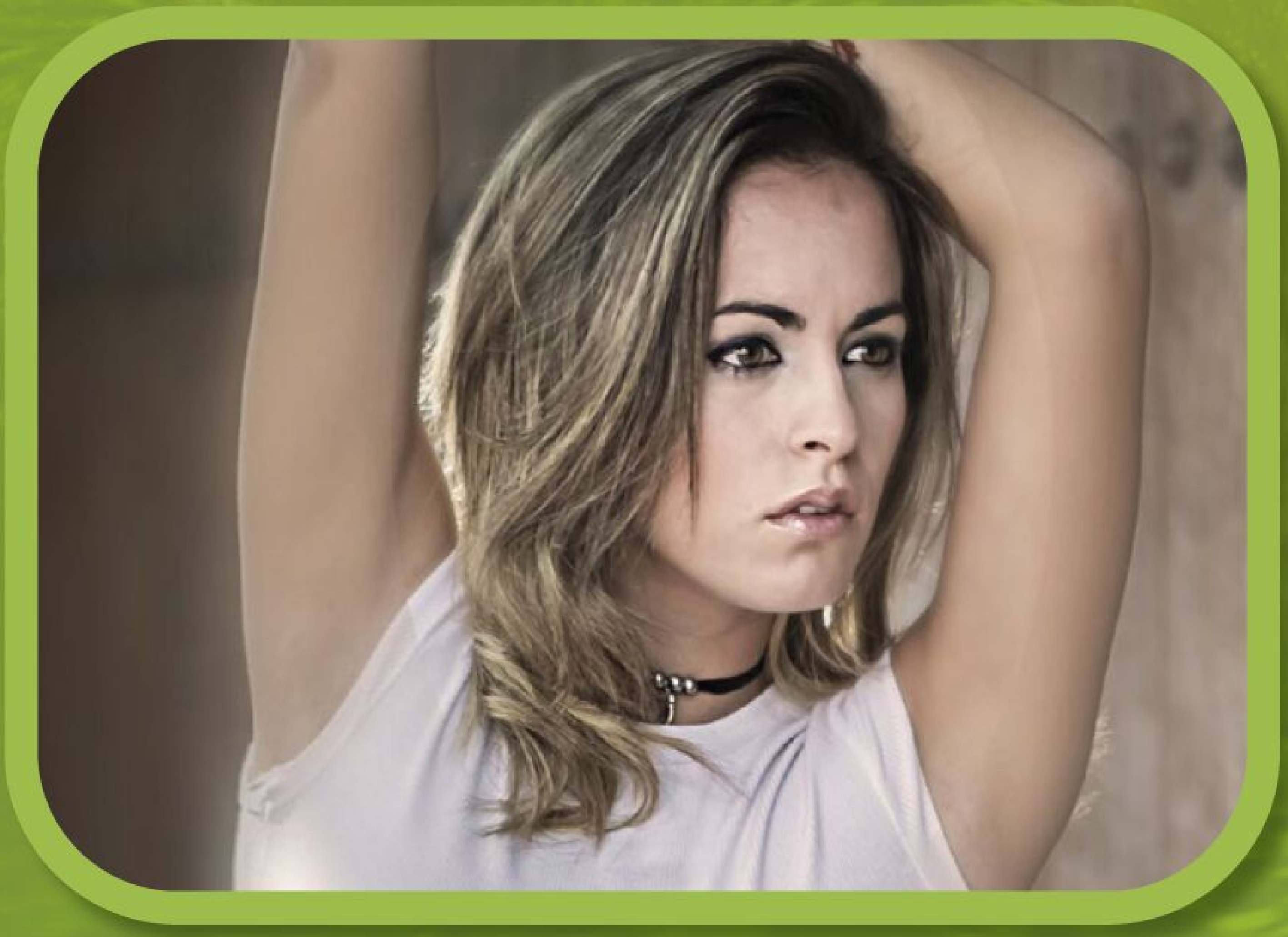
08 Work your way around the car in small increments. You can Alt + Left-Click to re-sample a new area of clean tile at any point. Once the car is removed, you can go over any slight mismatched areas and do a final clean up until you have the tiled floor empty.



09 Once done, click OK to commit the all the cloning changes and return to your main document. If you look at the new layer you created, all your cloning work is on that layer and the original image containing the car is completely untouched. This is the beauty of layer-based editing.

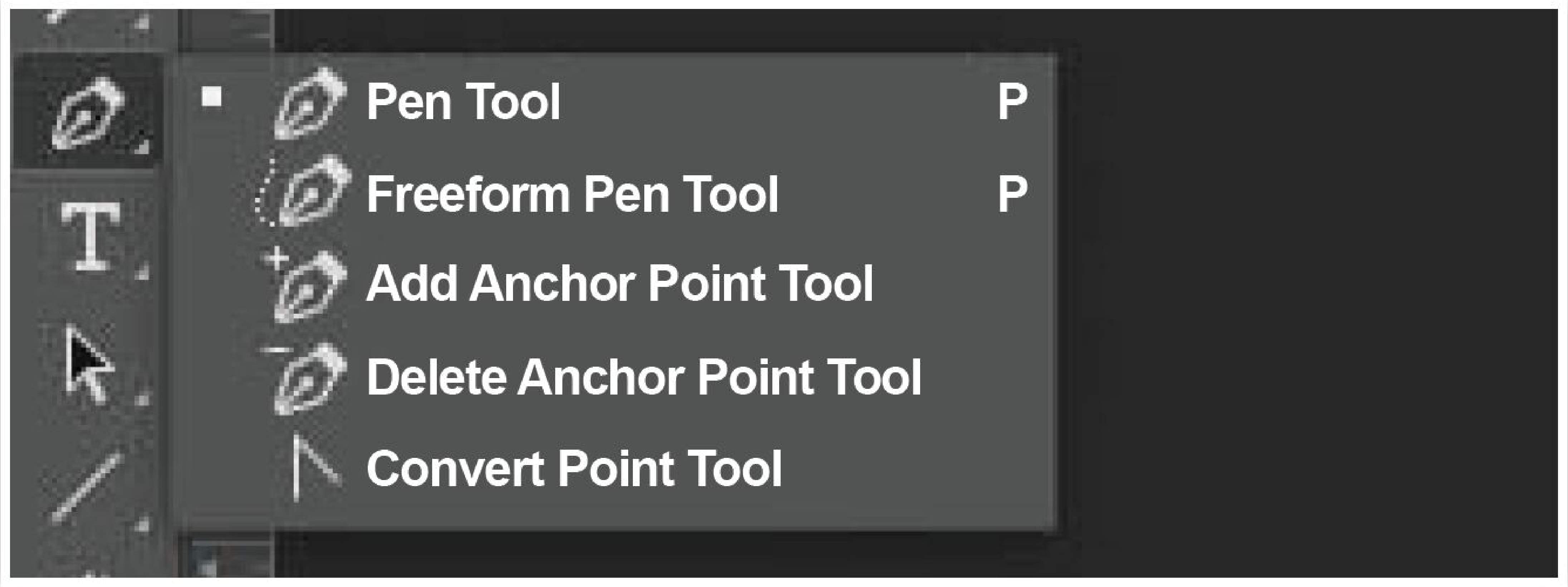
Enhance Your Skills

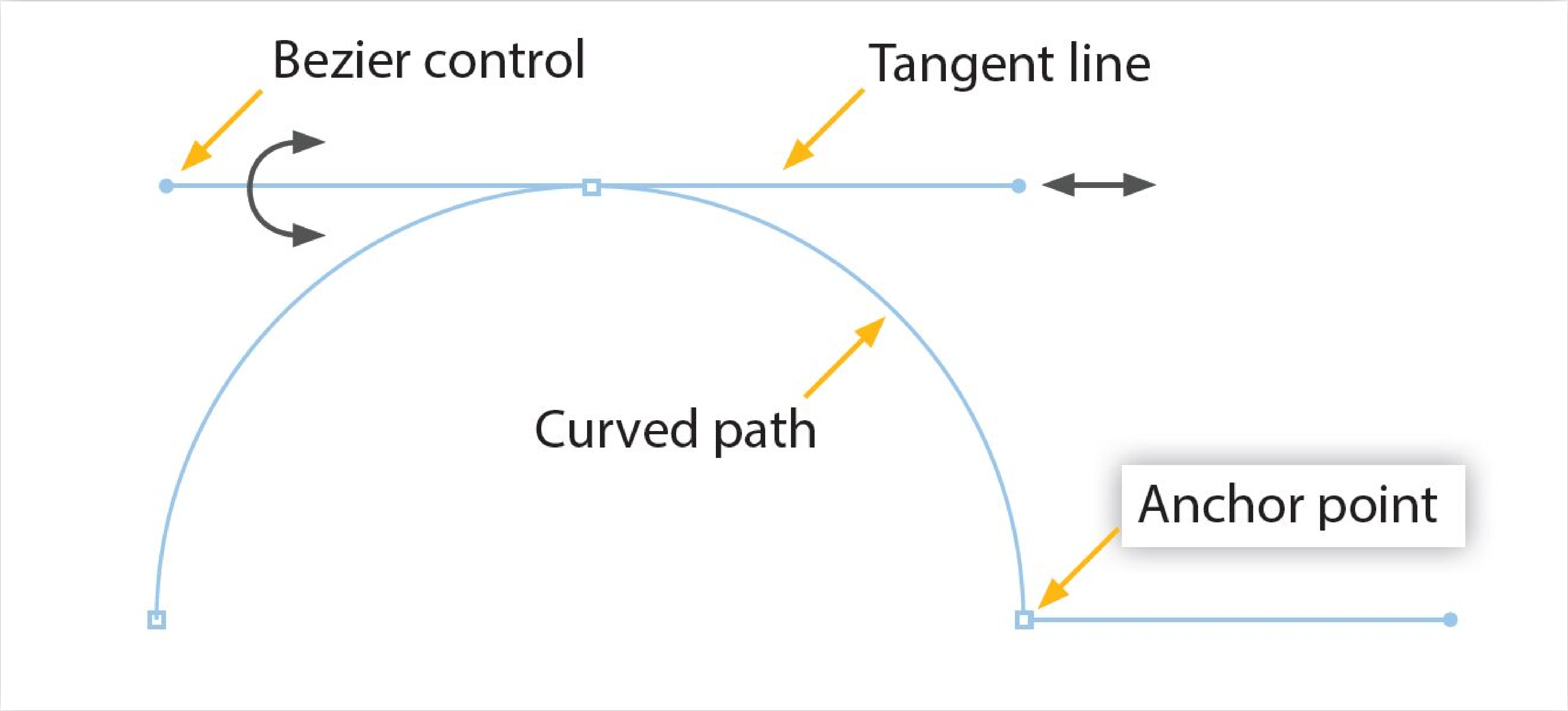
Photoshop is ready to make your images look amazing. It is used by graphic designers, digital artists and photographers the word over. The only choice you have to make is deciding what tools are best for the kind of editing you want to do. This section adds a few more strings to your bow, ready for you to take on any creative challenge.

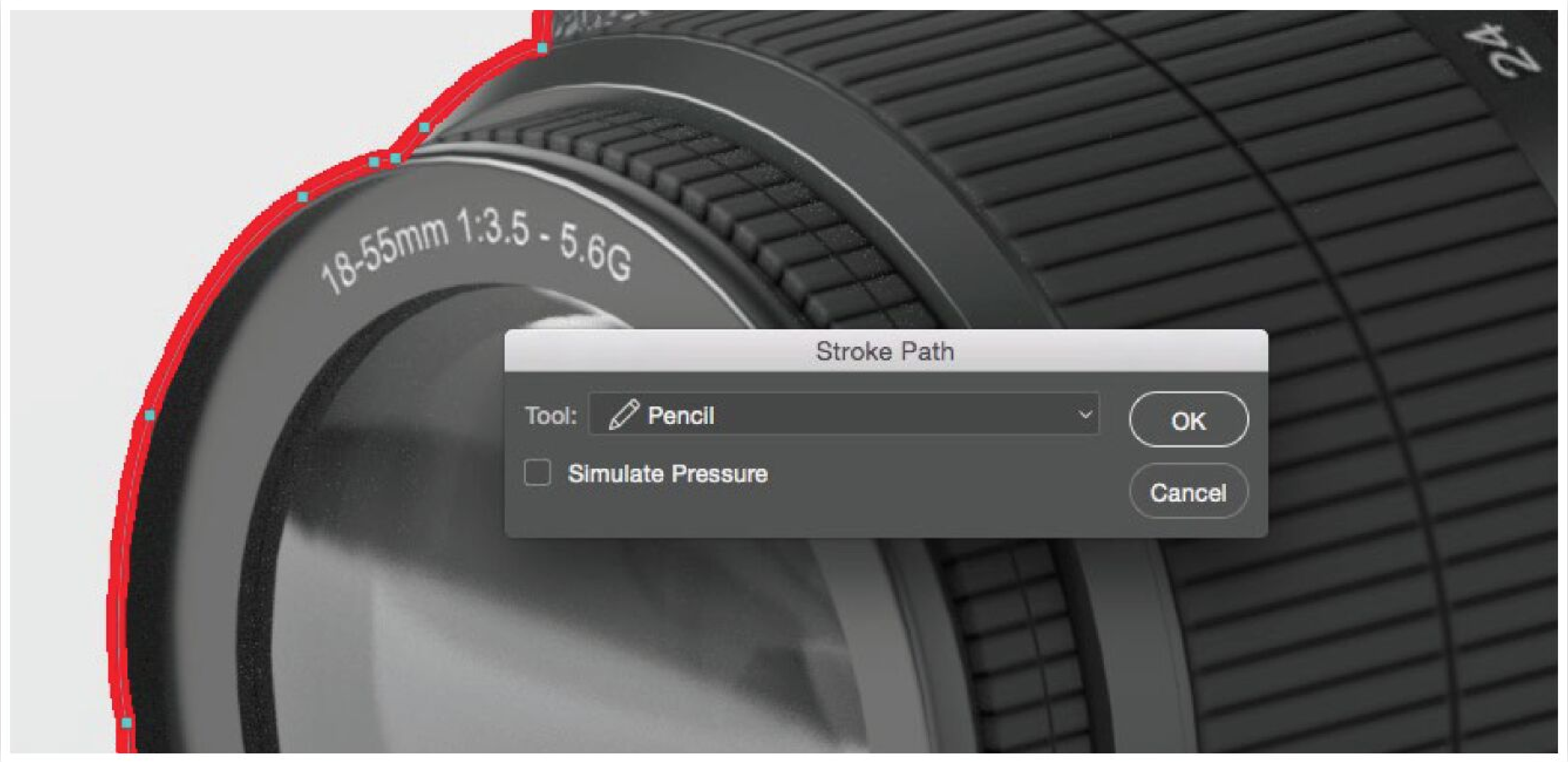


The Pen Tool and Paths

Draw smooth curved paths with the versatile Pen tool


Pen Tool P
Freeform Pen Tool P
Add Anchor Point Tool
Delete Anchor Point Tool
Convert Point Tool


Bezier control
Tangent line
Curved path
Anchor point


18-55mm 1:3.5 - 5.6G
24
Stroke Path
OK
Cancel

Tool: Pencil

☐ Simulate Pressure

The quickest and most common way to make selections is to use the Polygonal Lasso tool but since that only draws straight lines from point to point it isn't ideal for making accurate selections around curved edges. Photoshop does have a tool for making smooth curves though, and it's called the Pen tool (keyboard shortcut P).

Rather than creating a selection directly like the Lasso tool, the Pen tool is used to create a Work Path. A Work Path in Photoshop is a vector graphic outline which can be used for several functions, including shaped text, outline strokes and of course selections. A path consists of straight and curved lines segments connected with points. You can leave a path open to form a straight or curved line, or close a path to form a shape.

Paths are independent of any particular layer, so you can use the same path to create shapes on more than one layer of an image, and you can copy a path from one image to another.

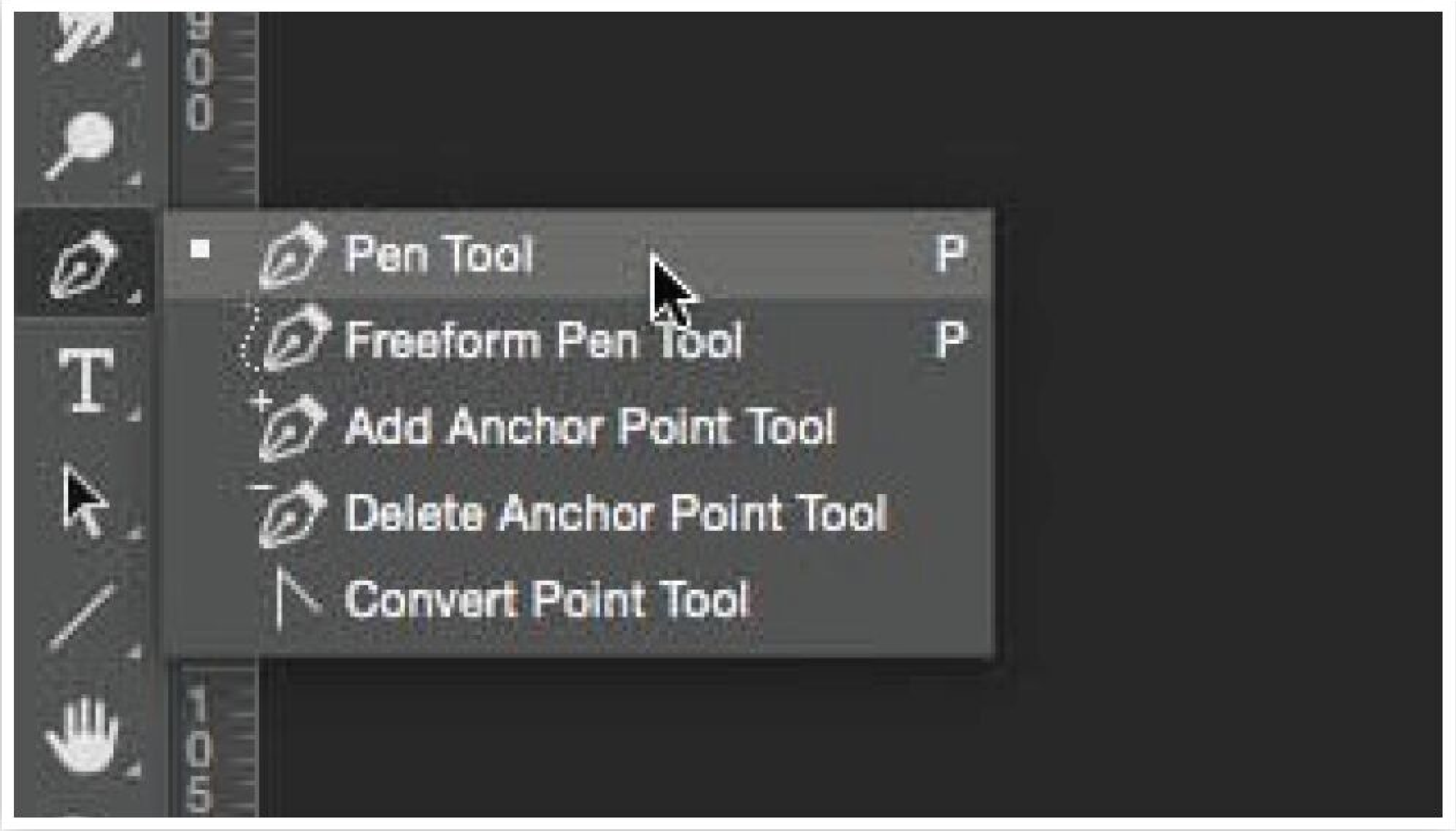
Using the Pen tool and Paths effectively is a complicated process that takes a lot of practice to master, but it's worth the effort, because once you crack it you'll be able to make smooth curves and selections around almost any shape. If you want to use Photoshop in a professional capacity it's an essential skill to learn.

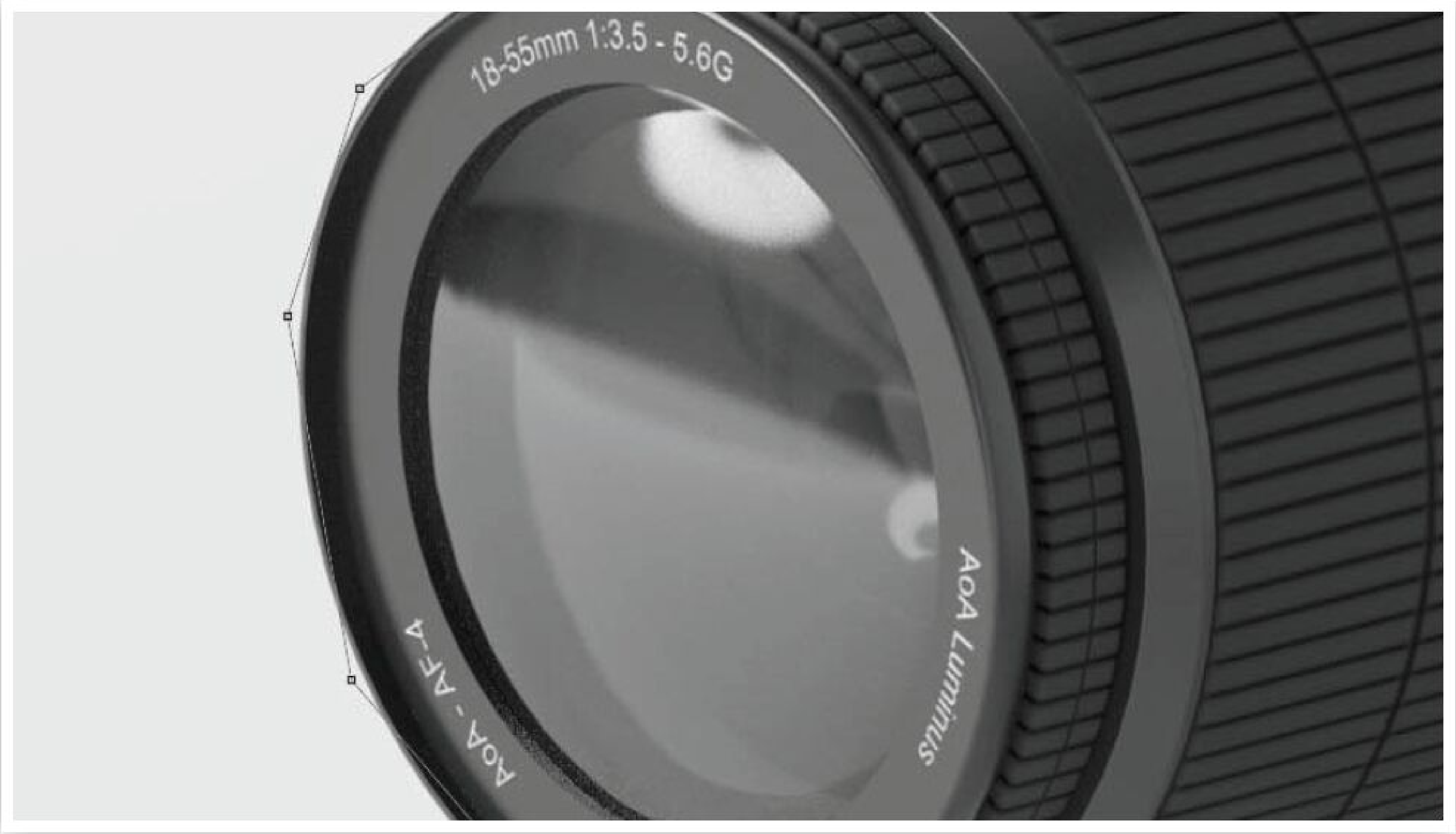
USEFUL TIP

If you need to repeat the same selection on multiple layers, save your selection as part of the image. You can then load it in again to save repeating work.

Using the Pen Tool

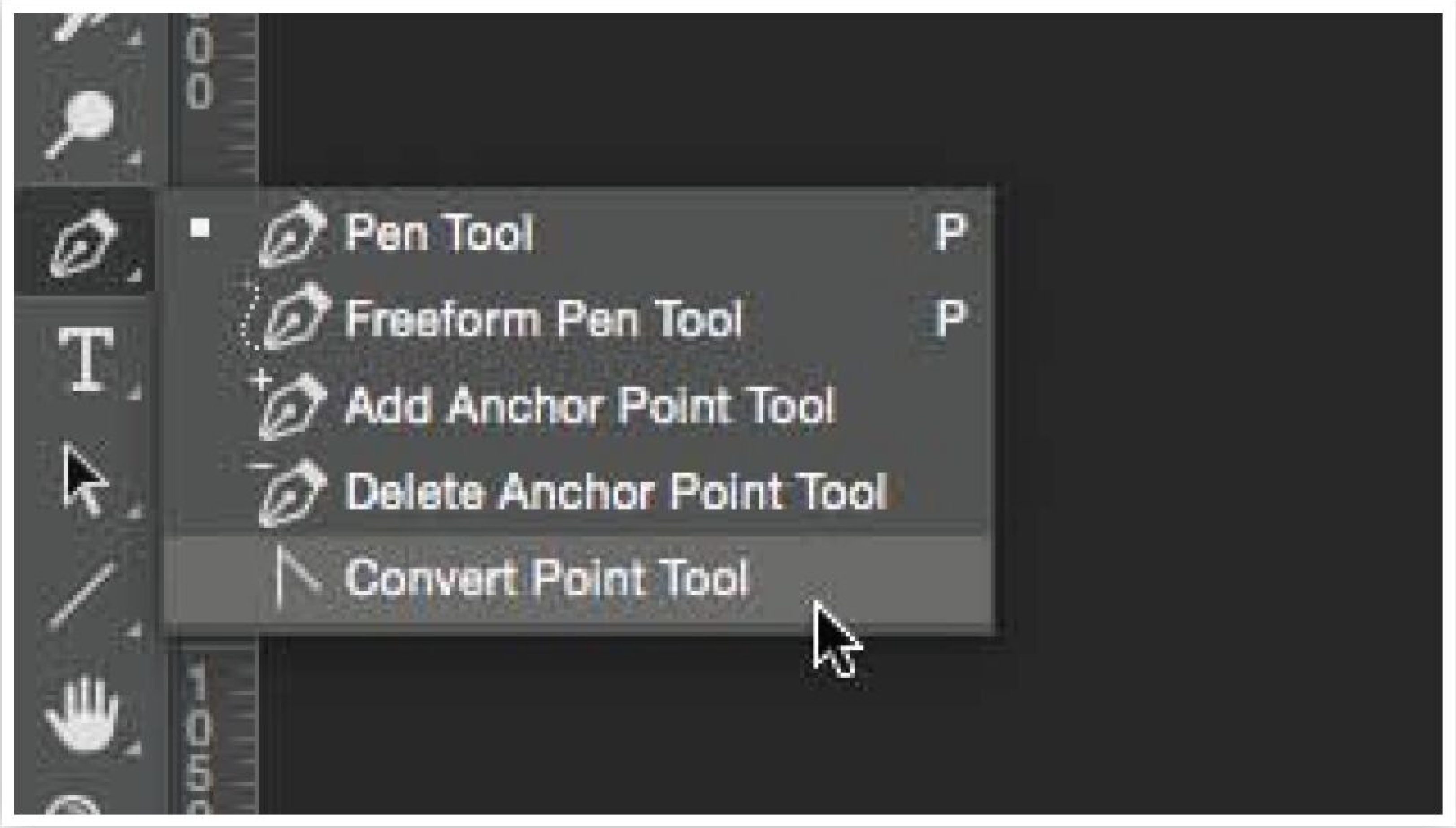
Using the Pen tool effectively takes some practice and a lot of patience. Here's the low-down on how it works.

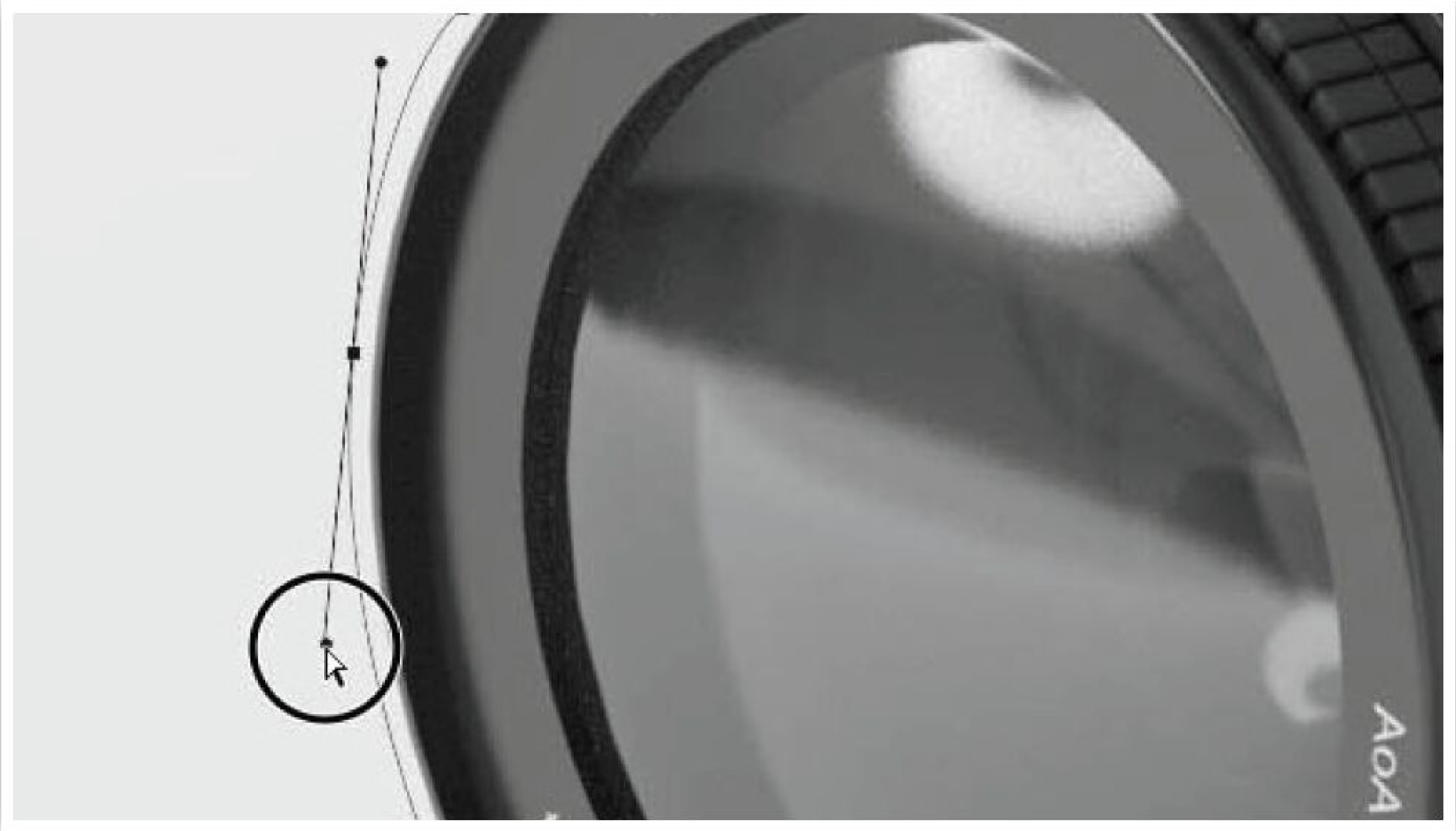

Pen Tool P
Freeform Pen Tool P
Add Anchor Point Tool
Delete Anchor Point Tool
Convert Point Tool


18-55mm 1:3.5 - 5.6G
AoA Luminus
AoA - AF-A

01 The Pen tool works by using anchor points which are connected by lines. To draw a curved line, first select the Pen tool from the Tool Palette.

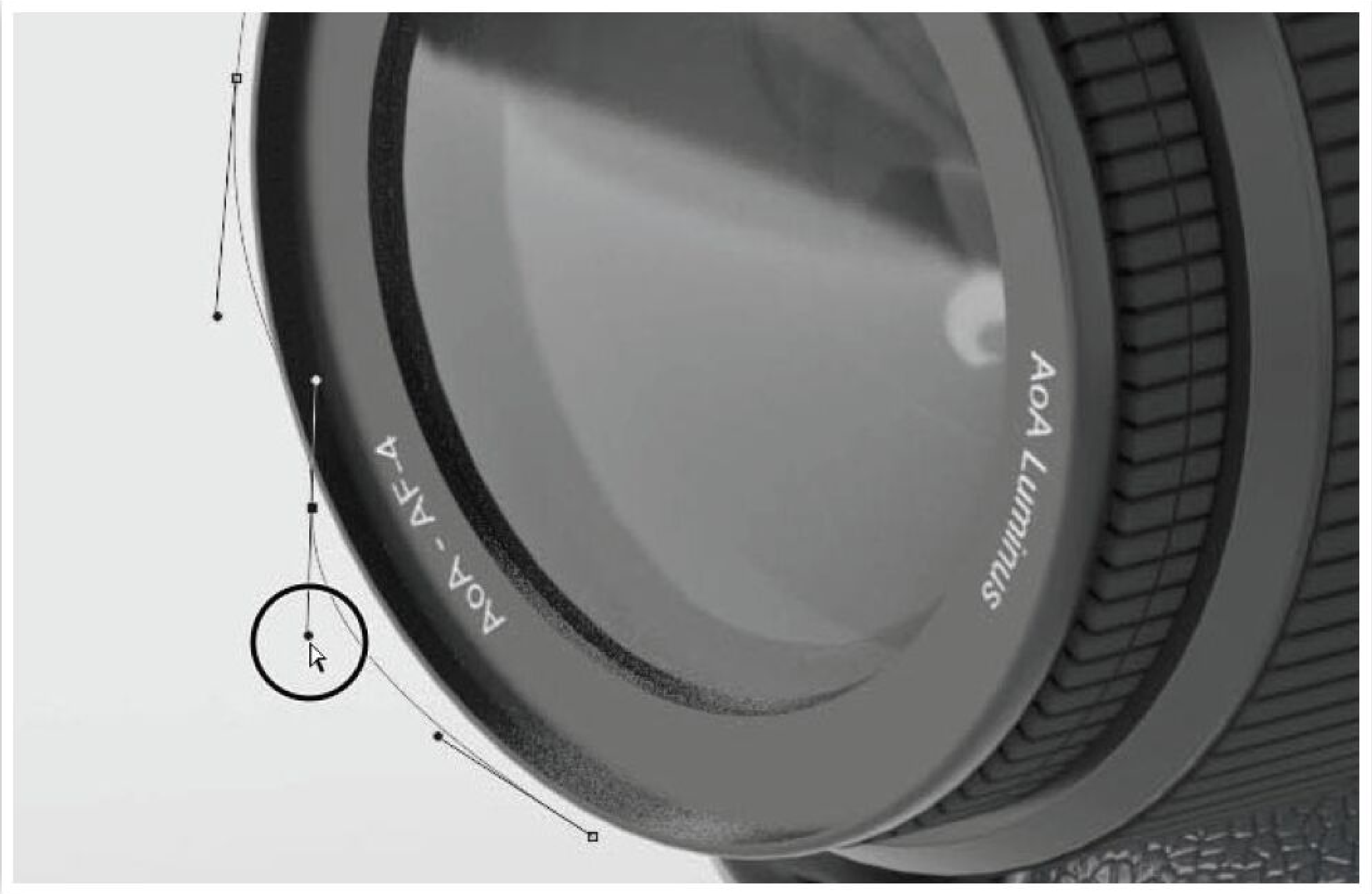
02 Click with the pen tool at three or four points on the line you wish to draw; these are called anchor points, and you'll see that there are straight lines connecting them.

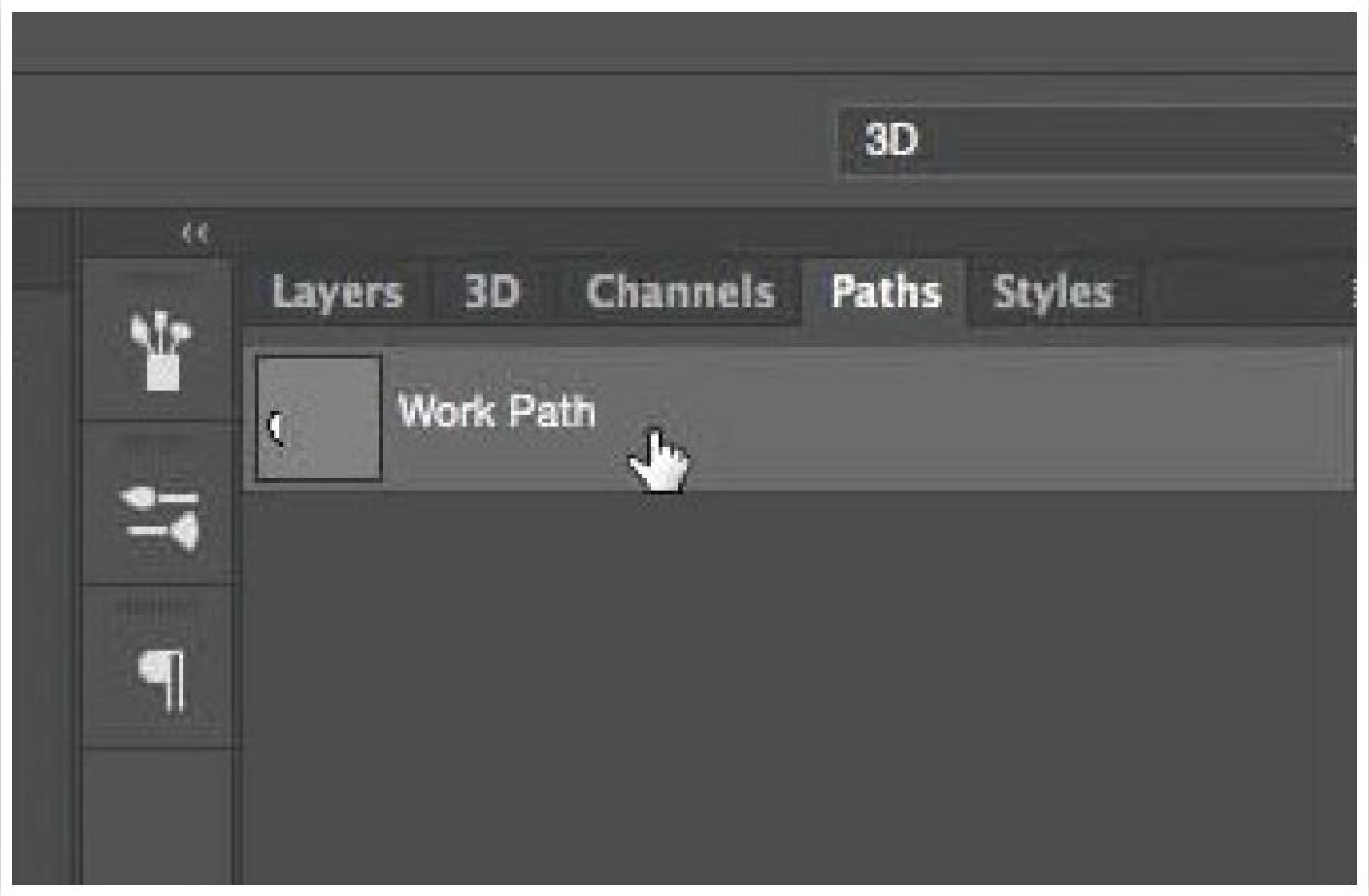

Pen Tool P
Freeform Pen Tool P
Add Anchor Point Tool
Delete Anchor Point Tool
Convert Point Tool



03 Next, click and hold on the Pen tool icon, and select the Convert Point tool. You use this to manipulate the anchor points and control the curvature of the line.

04 Click and hold on any of your anchor points, and drag away from the point. You should see two lines with handles on the ends extrude from the anchor point. This is called a tangent line.


AoA Luminus
AoA - AF-A


3D
Layers
3D
Channels
Paths
Styles
Work Path

05 If you move the cursor around you'll see the line linking your anchor points flex and bend. You can use this to bend the line to match the curvature of the edge you're trying to follow.

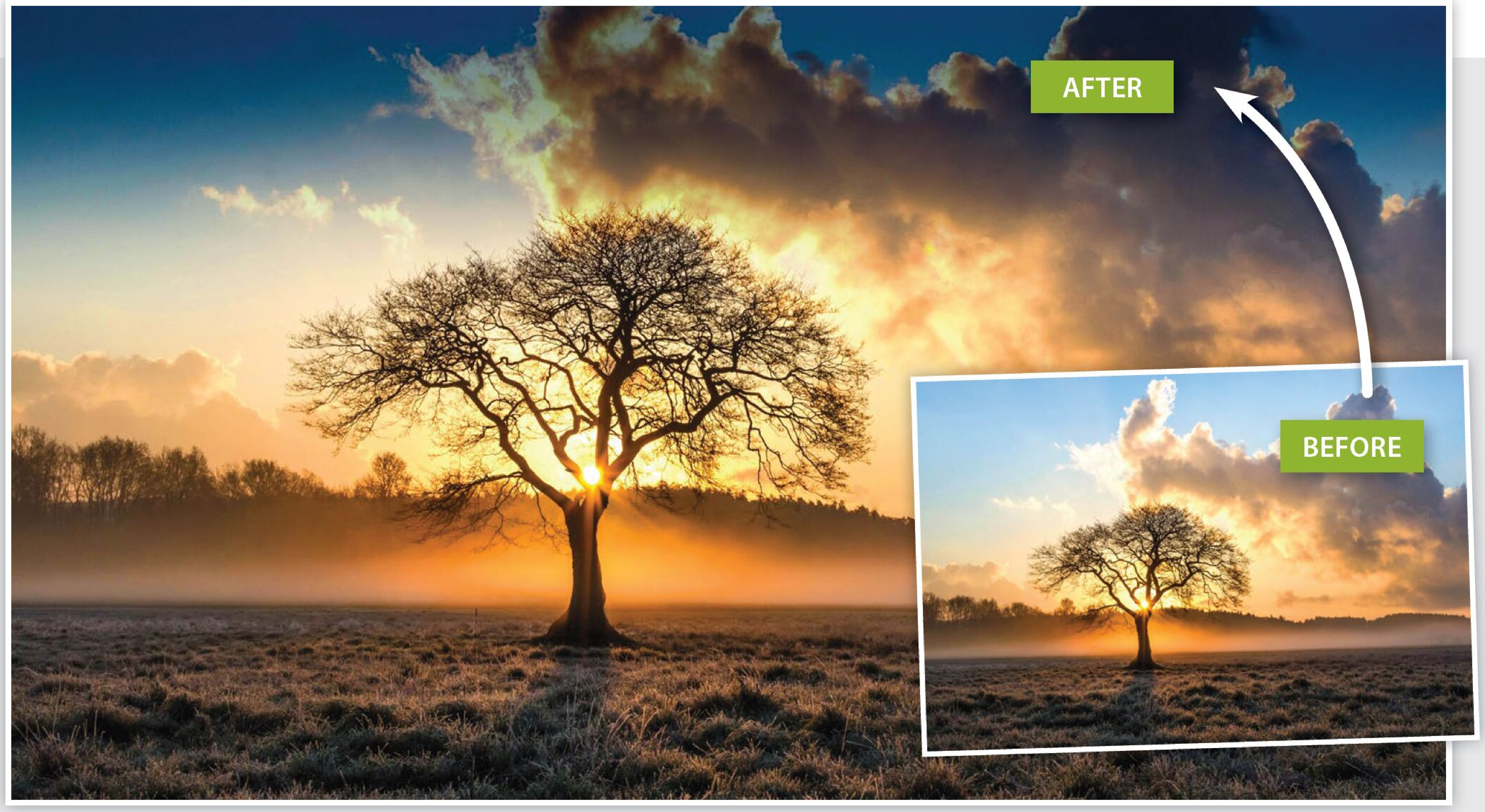
06 With practice and patience you can bend a curved line around even quite complex shapes. If you open the Paths palette you'll see the work path you've created appear in the list.

Adding a Graduated Filter

Graduated filters can improve photos by adding depth and colour to the sky

Photographers use graduated filters placed in front of the camera lens to selectively change the exposure and sometimes the colour of part of a picture, usually to darken the sky to bring out details in the clouds and balance the exposure with the landscape in the foreground. They come in many different shapes, sizes and colours to fit all types of camera system.

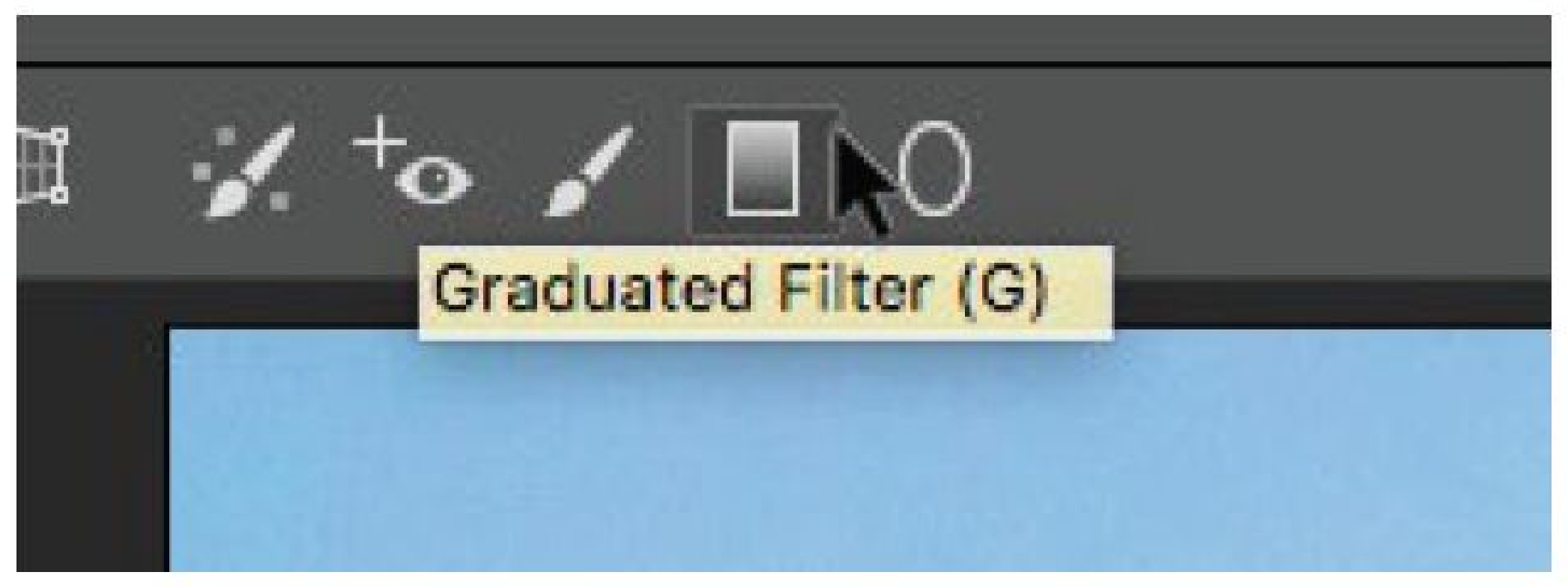
As with most photographic techniques, it's possible to duplicate the effect of graduated filters using Adobe Photoshop and as usual there are several ways to accomplish this. For this example we'll use a landscape photo of a sunrise over a field.



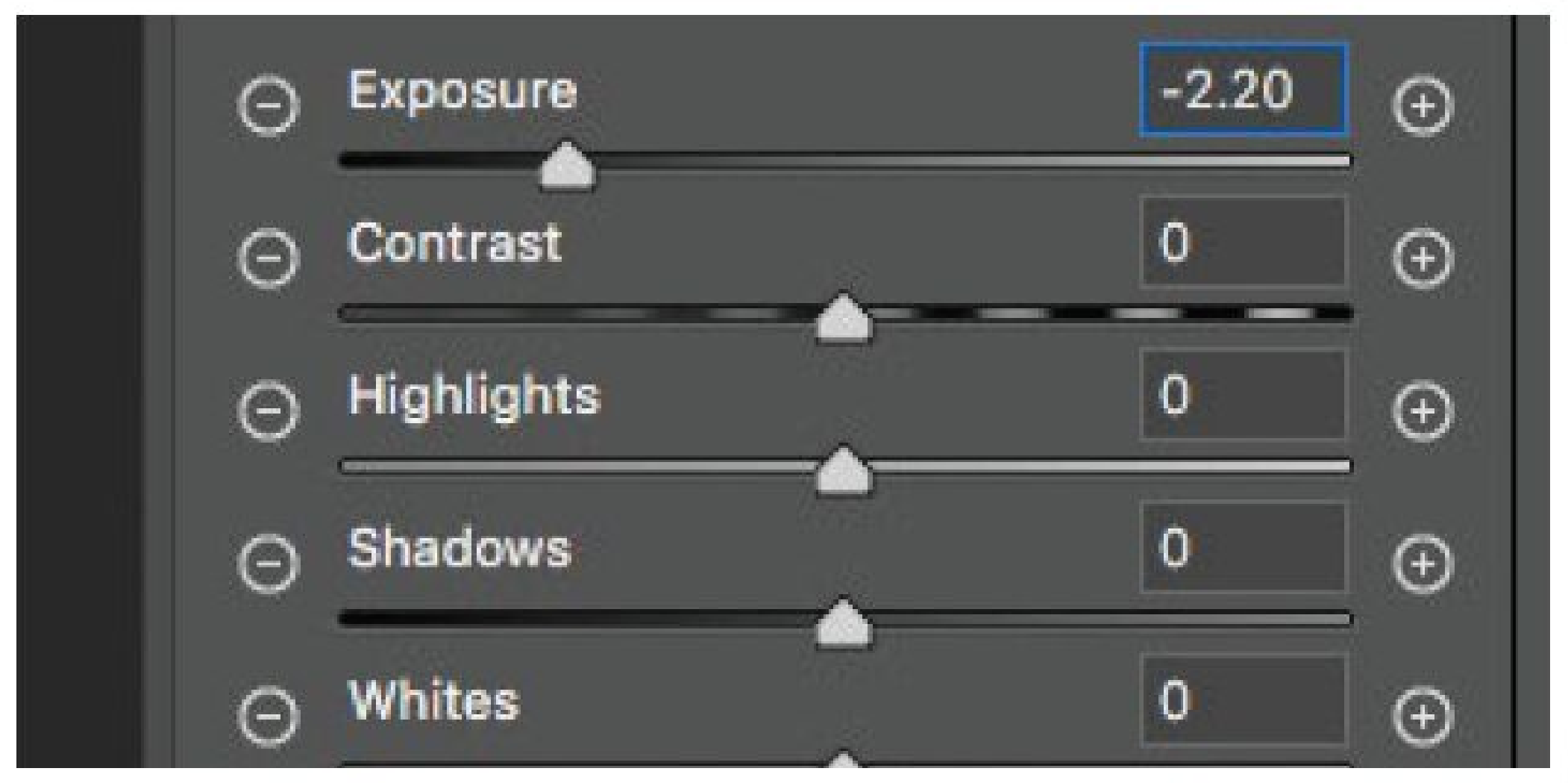
Graduated Filter in Camera Raw

Since this photo was taken using Raw mode, we can use the Graduated Filter tool in Adobe Camera Raw (ACR). ACR is the Raw processing application supplied with each version of Photoshop and allows you to add the effect during processing. This is by far the best way to do it, since it preserves the maximum amount of detail in the photograph.

01 When you open the image in Adobe Camera Raw, you'll see a row of tool icons across the top of the main image window. The Graduated Filter icon is to the right.

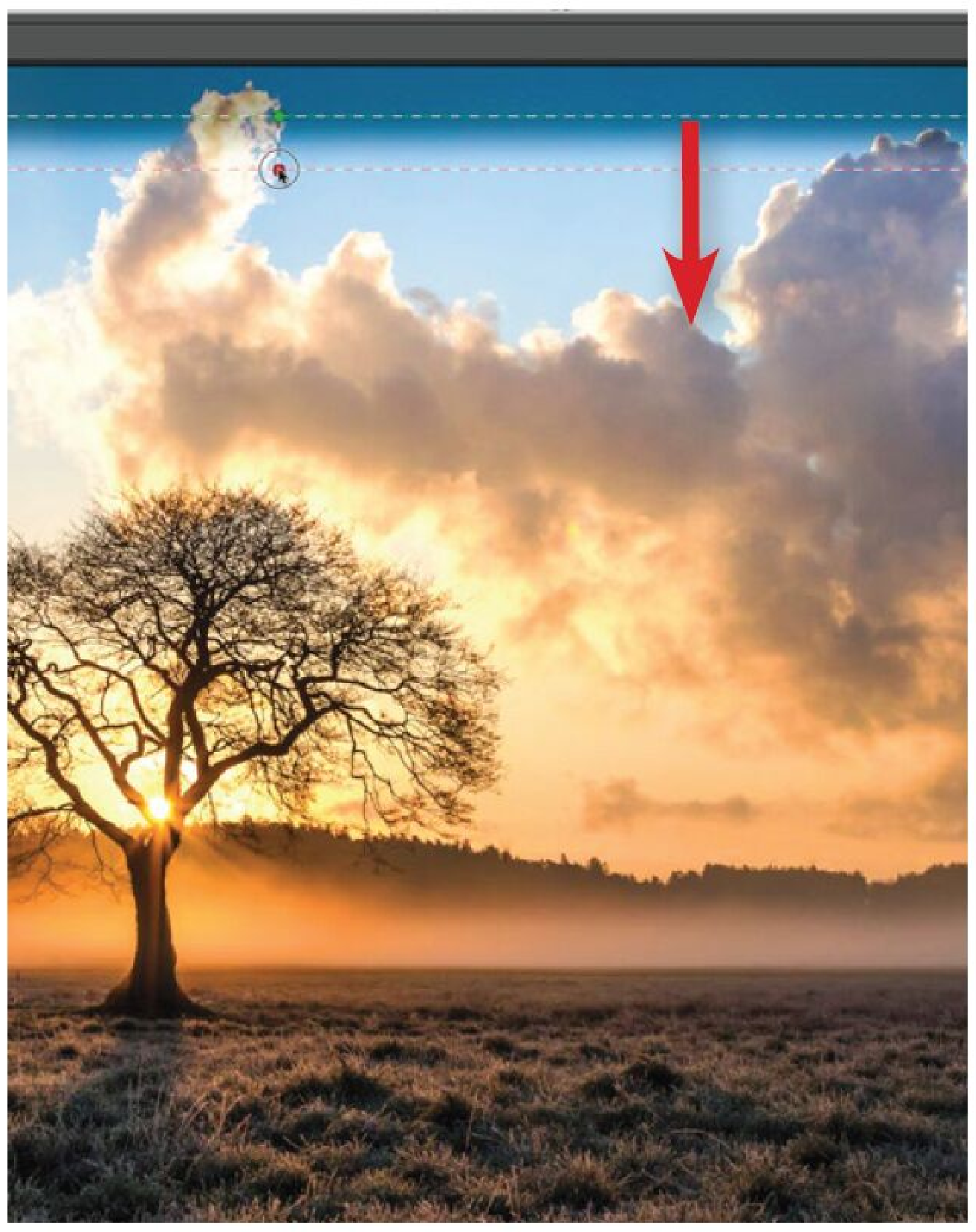

Graduated Filter (G)

02 When you click on the Graduated Filter icon, you'll see the control panel on the right of the screen change. The filter can apply many different effects, but the one we want to use is a reduction in exposure. A setting between -2.00 and -2.70 should produce a suitable effect for this picture.

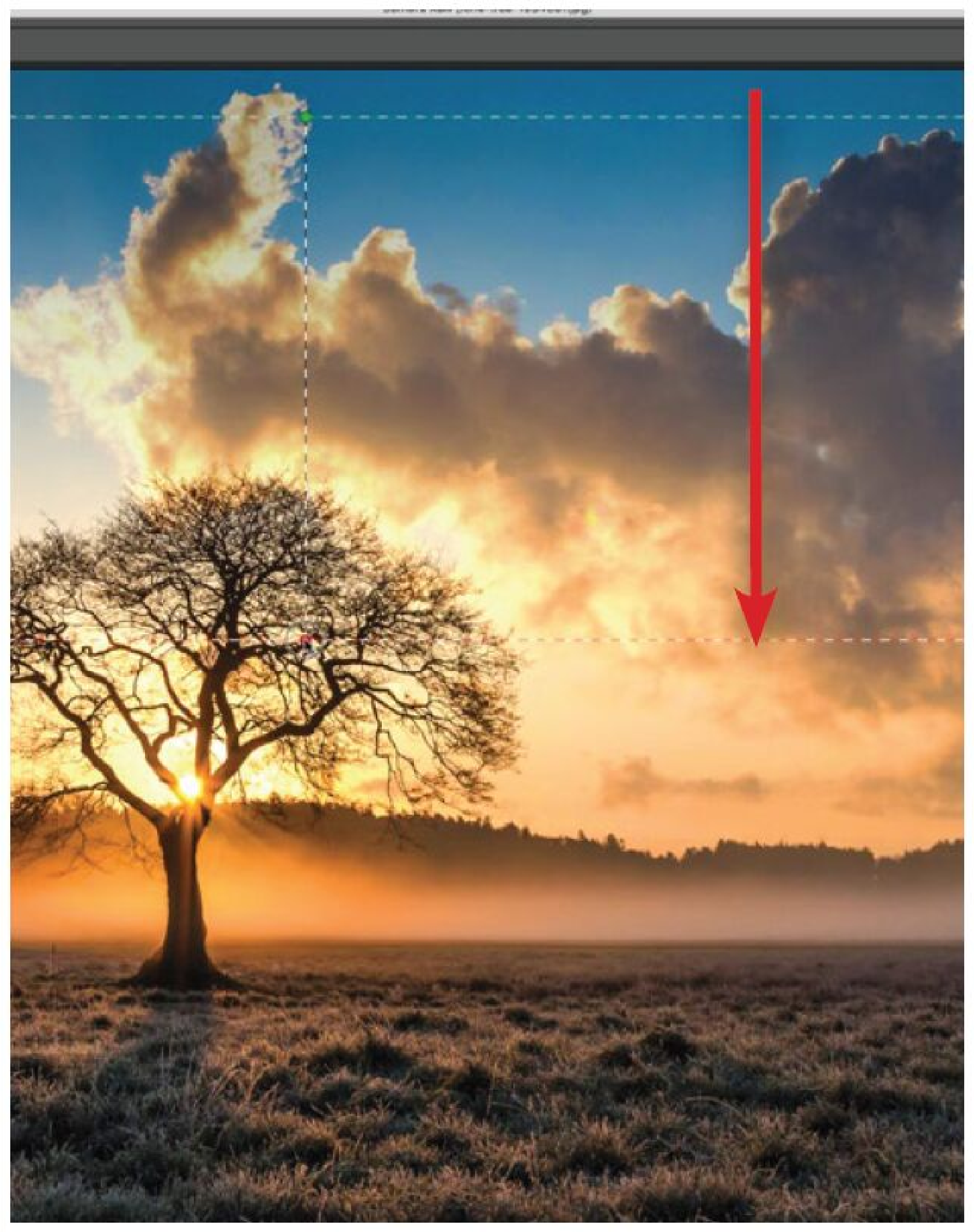


Exposure -2.20
Contrast 0
Highlights 0
Shadows 0
Whites 0

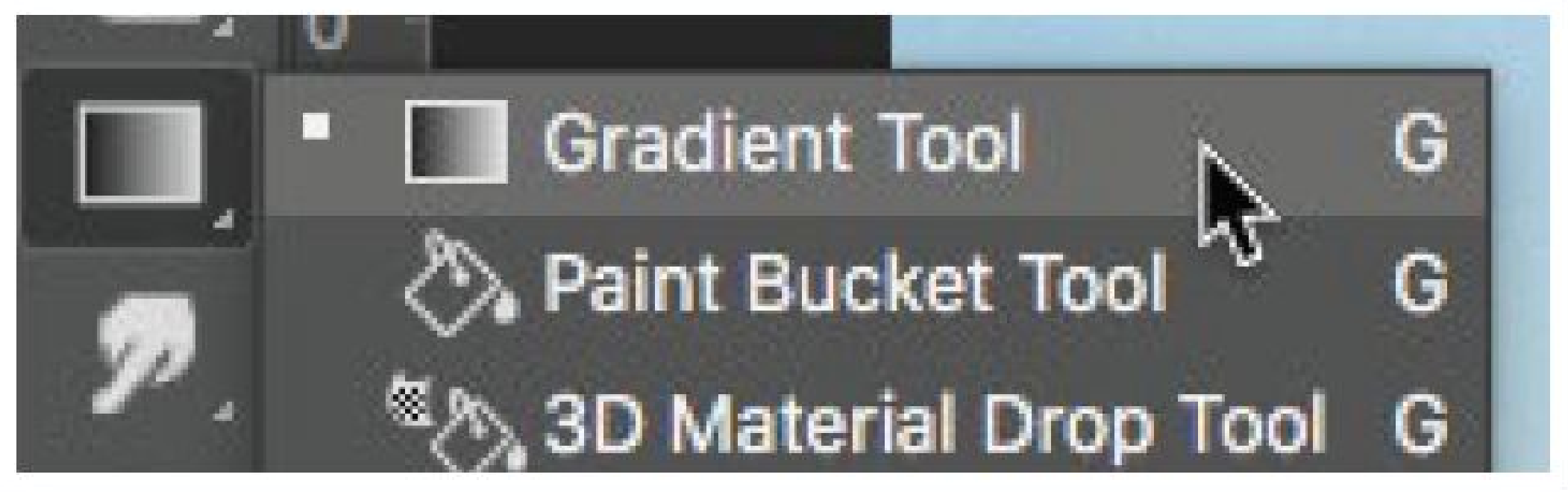
03 To apply the filter, drag a line down from the top of the screen to the horizon line. You'll see a horizontal and vertical dotted line like an inverted T. You'll also notice that you can change the angle of the line by moving the cursor left and right. To constrain the line to the vertical, hold down the Shift key while dragging.

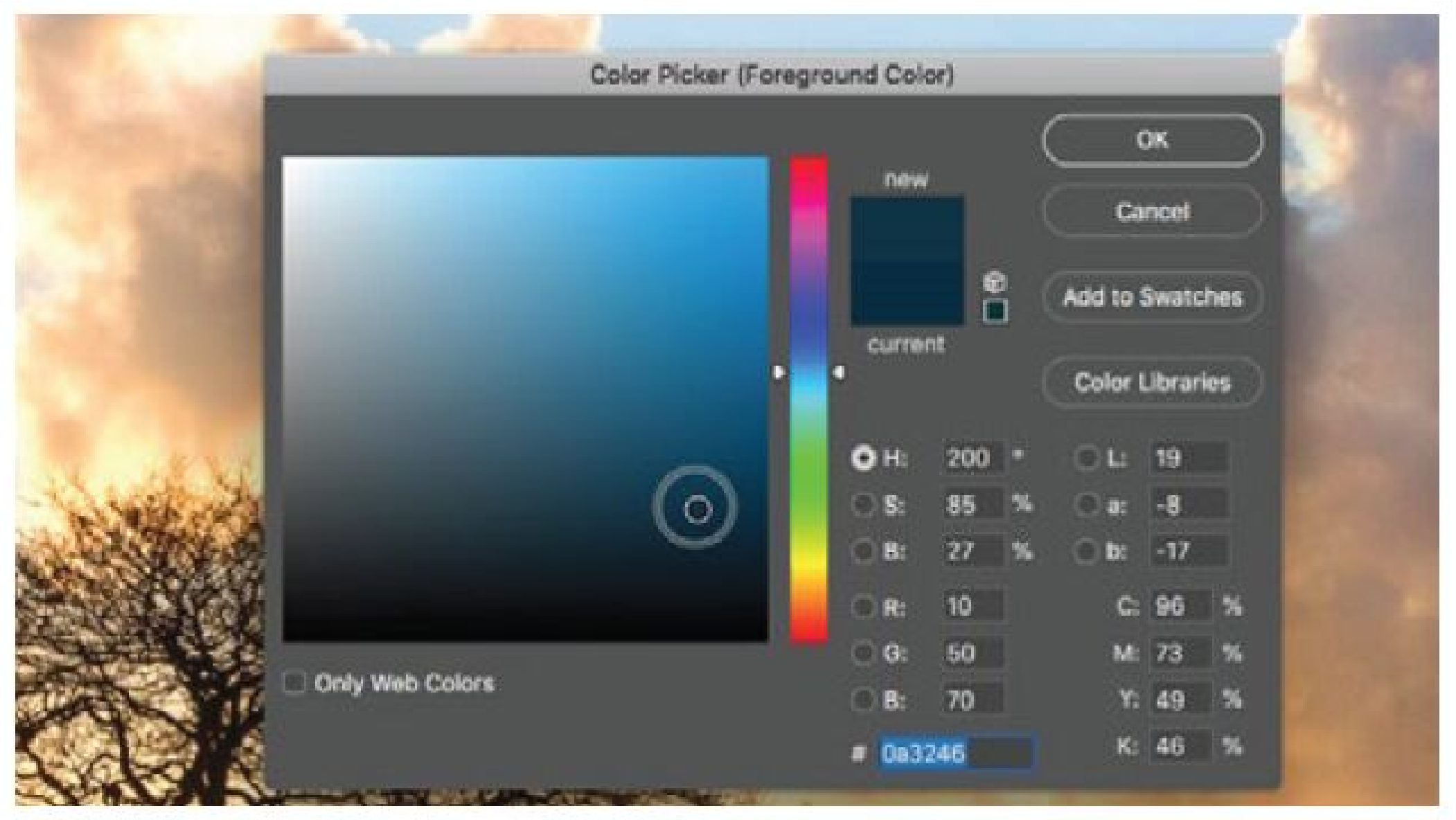


04 The red dotted line marks the lower, least saturated edge of the gradient effect, but there is also a green line at the top of the frame. This marks the top or most saturated edge of the effect, with a smooth gradient between the two lines. If you drag this green line down, more of the image will be at maximum effect and the gradient will be shorter.



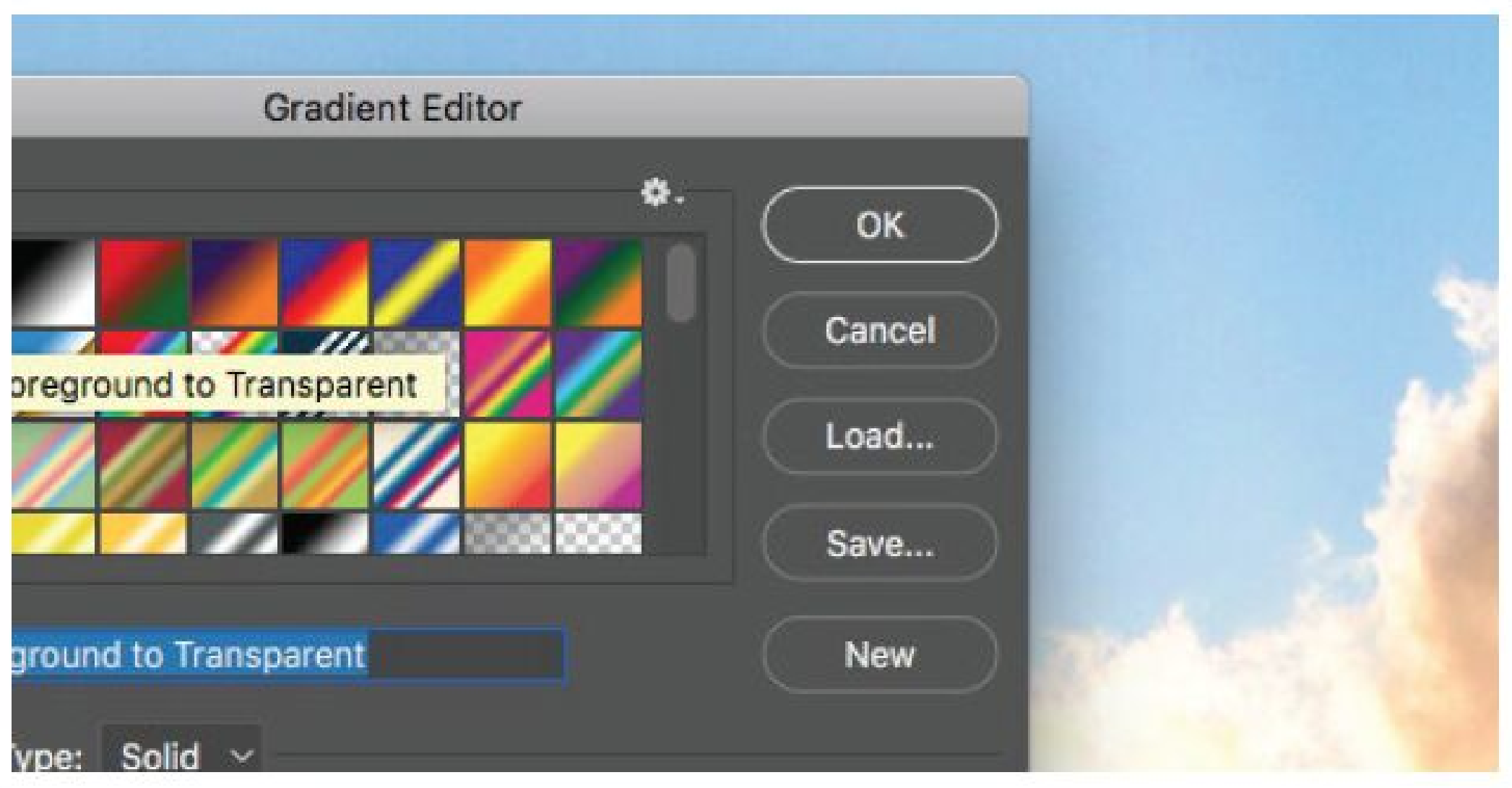
Graduated Filter in Photoshop


Gradient Tool G
Paint Bucket Tool G
3D Material Drop Tool G

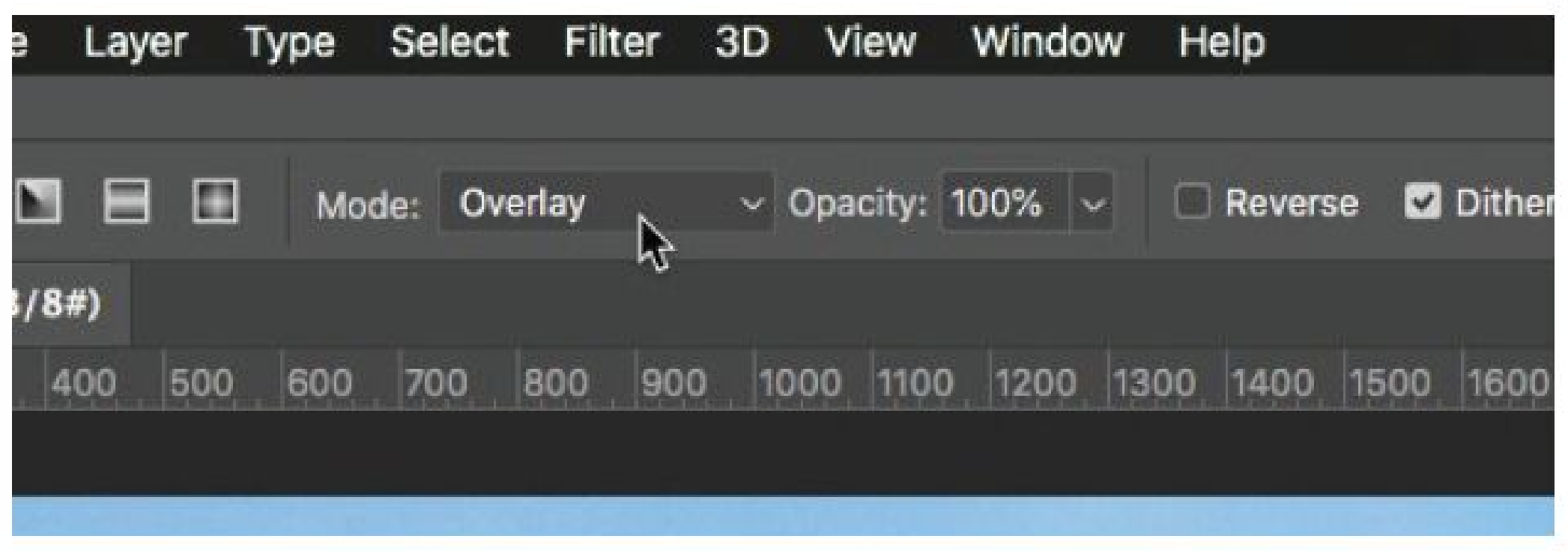

Color Picker (Foreground Color)
new
current
OK
Cancel
Add to Swatches
Color Libraries
Only Web Colors

H: 200 °
S: 85 %
B: 27 %
R: 10
G: 50
B: 70
L: 19
a: -8
b: -17
C: 96 %
M: 73 %
Y: 49 %
K: 46 %
0a3246

01 If your photo wasn't taken in Raw mode, you can apply a graduated filter using the Gradient Tool. To set up the graduated filter, first select the Gradient Tool, then set the foreground colour to dark blue by clicking on the foreground square and then using the colour picker.

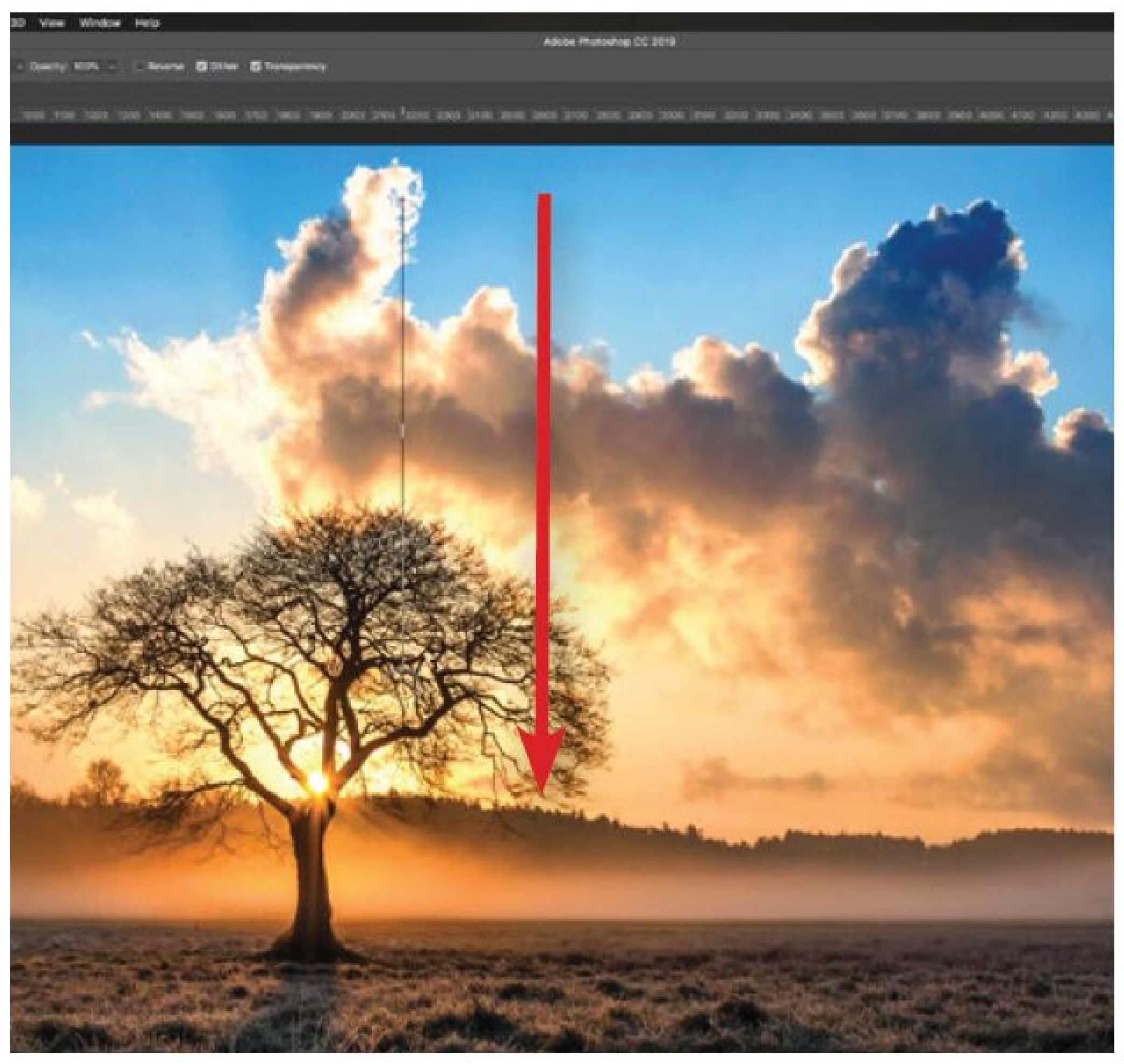

Gradient Editor
oreground to Transparent
OK
Cancel
Load...
Save...
New

ground to Transparent
ype: Solid


e Layer Type Select Filter 3D View Window Help
/8#)
400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600

Mode: Overlay
Opacity: 100%
☐ Reverse
☑ Dither

02 Next, in the tool options bar, click on the gradient editor and select Foreground to Transparent, click on the button for Linear Gradient, set the Blending mode to Overlay and the Opacity to 100 percent. Make sure the boxes for Dither and Transparency are checked.



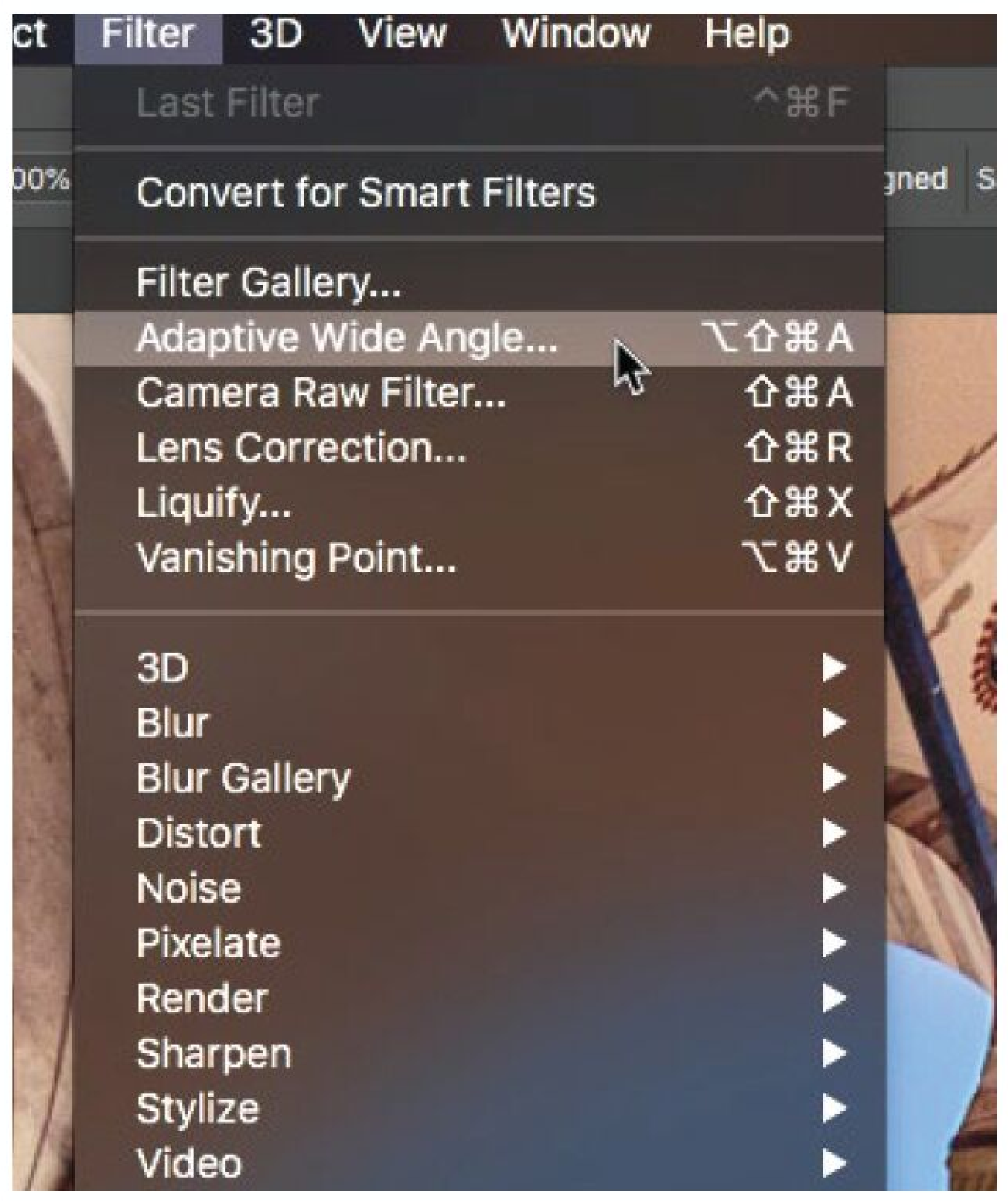
03 To apply the gradient to the picture, start at the top of the frame and then click and drag down to the horizon line. If you hold down the shift key it will constrain the line to the vertical. The blue is blended into the sky making it darker. It's always a good idea to tailor the blend colour to match the sky. Apply again if you want it darker.

Correcting Lens Distortion

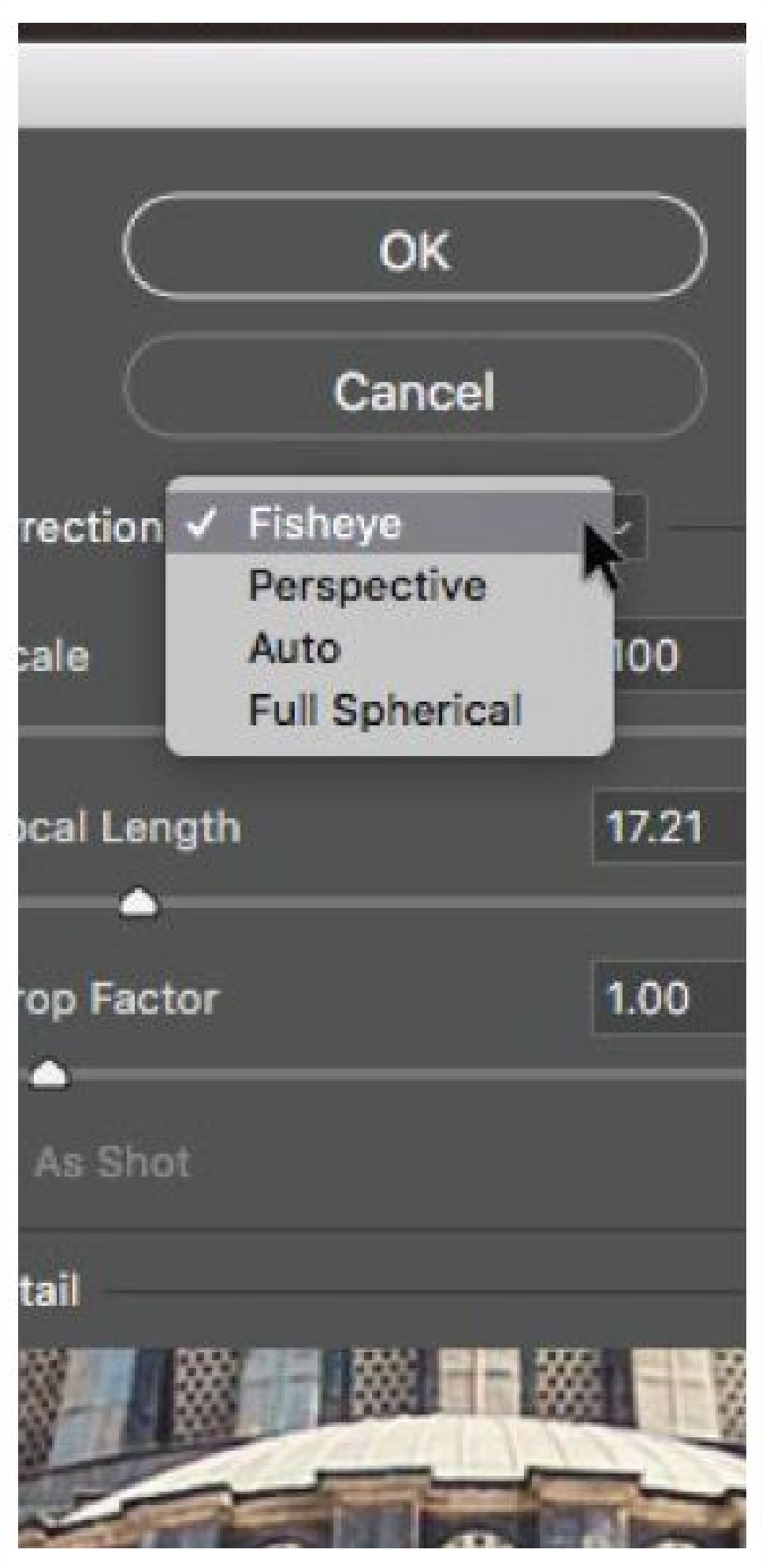
Correct the optical distortion of ultra-wide lenses with Photoshop's Adaptive Wide Angle

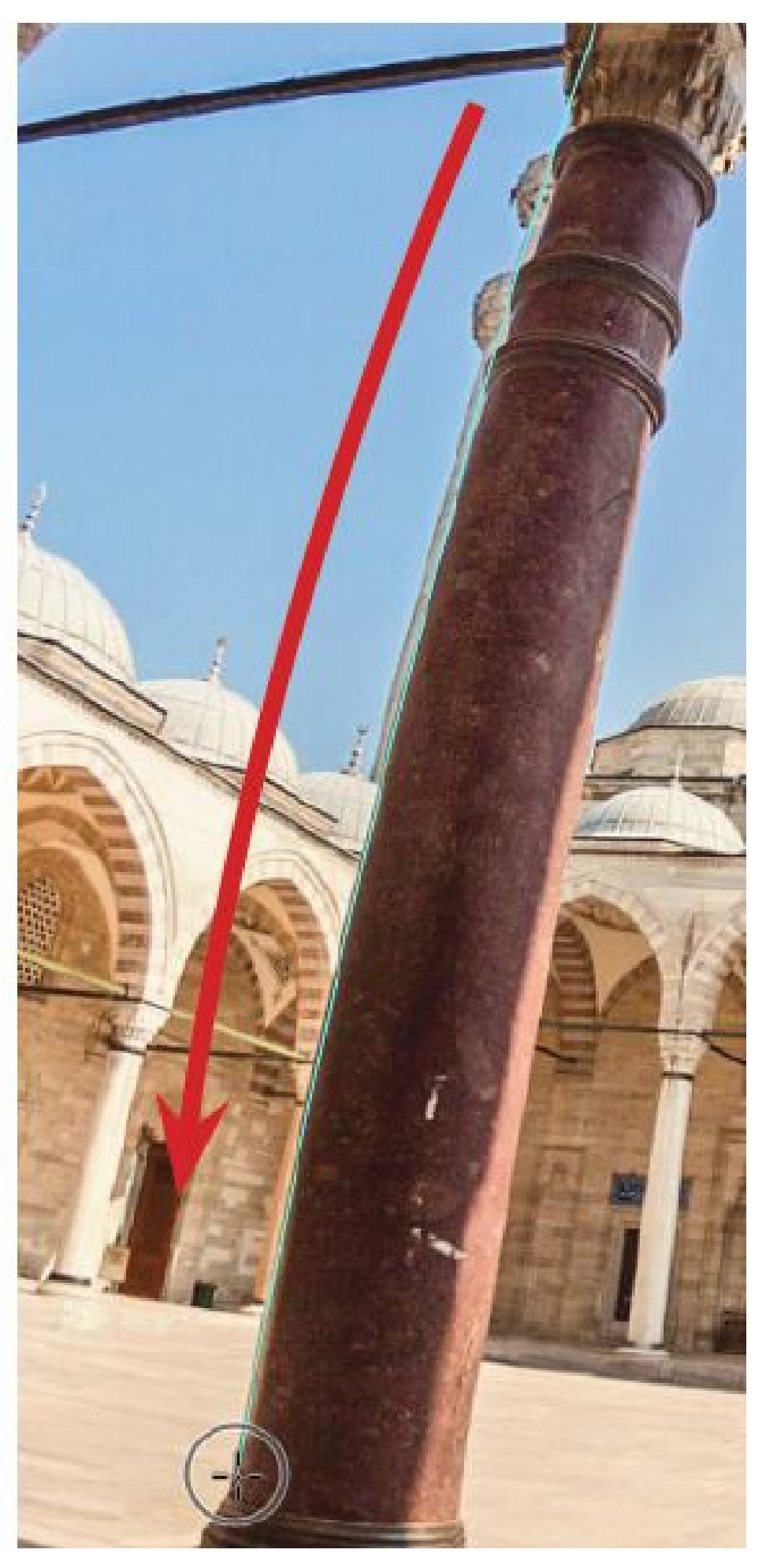
CANON FISHEYE ZOOM LENS EF 8-15mm 1:4 L USM
8-15mm
ULTRASONIC
Canon
AF MF

One of the new features introduced with Photoshop CS6 is called Adaptive Wide Angle; this can warp and bend an image to undo the optical distortion common to all very wide angle lenses. We've all seen photographs taken with "fish-eye" lenses. These lenses are called ultra-wide-angle, because the angle of view that they can capture can be as much as 180 degrees. Naturally the ability to squeeze half a room into the same shot comes at a price and that is extreme optical distortion. Straight and parallel lines appear to be bent, perspective is massively shortened and familiar objects take on almost unrecognisable proportions. In the photo opposite, the straight uprights of the pillars and floor seem to curve strangely, everything appears to bulge outwards and the whole effect is certainly quite disconcerting.

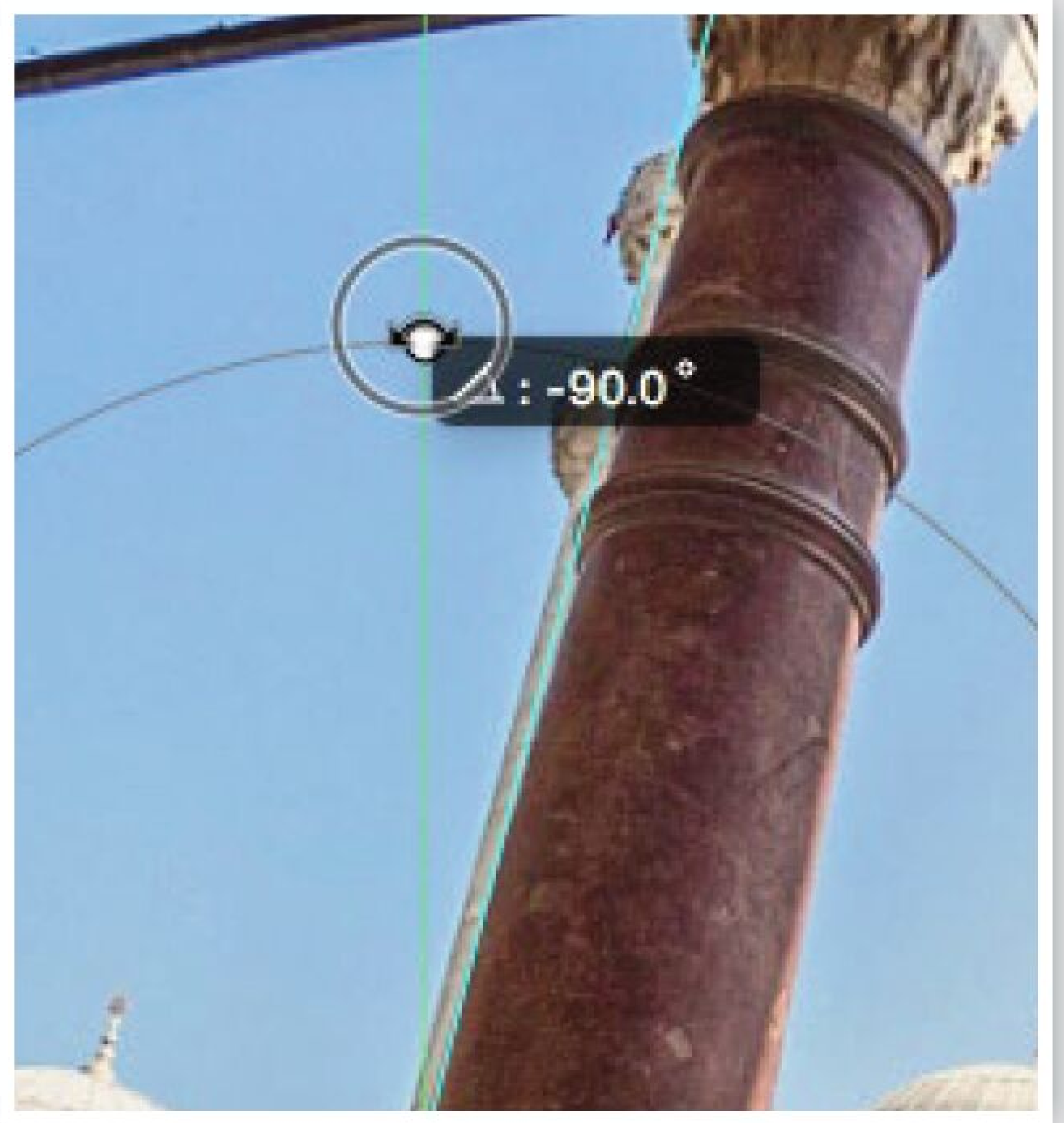

Filter
3D
View
Window
Help
Last Filter ^⌘F
Convert for Smart Filters
Filter Gallery...
Adaptive Wide Angle... ⌥⇧⌘A
Camera Raw Filter... ⇧⌘A
Lens Correction... ⇧⌘R
Liquify... ⇧⌘X
Vanishing Point... ⌥⌘V
3D
Blur
Blur Gallery
Distort
Noise
Pixelate
Render
Sharpen
Stylize
Video

01 Adaptive Wide Angle attempts to correct at least some of these problems and can warp the picture to undo most of the optical distortion. Remarkably it can do all this while still preserving most of the detail in the picture. You'll find Adaptive Wide Angle in the Filters menu.

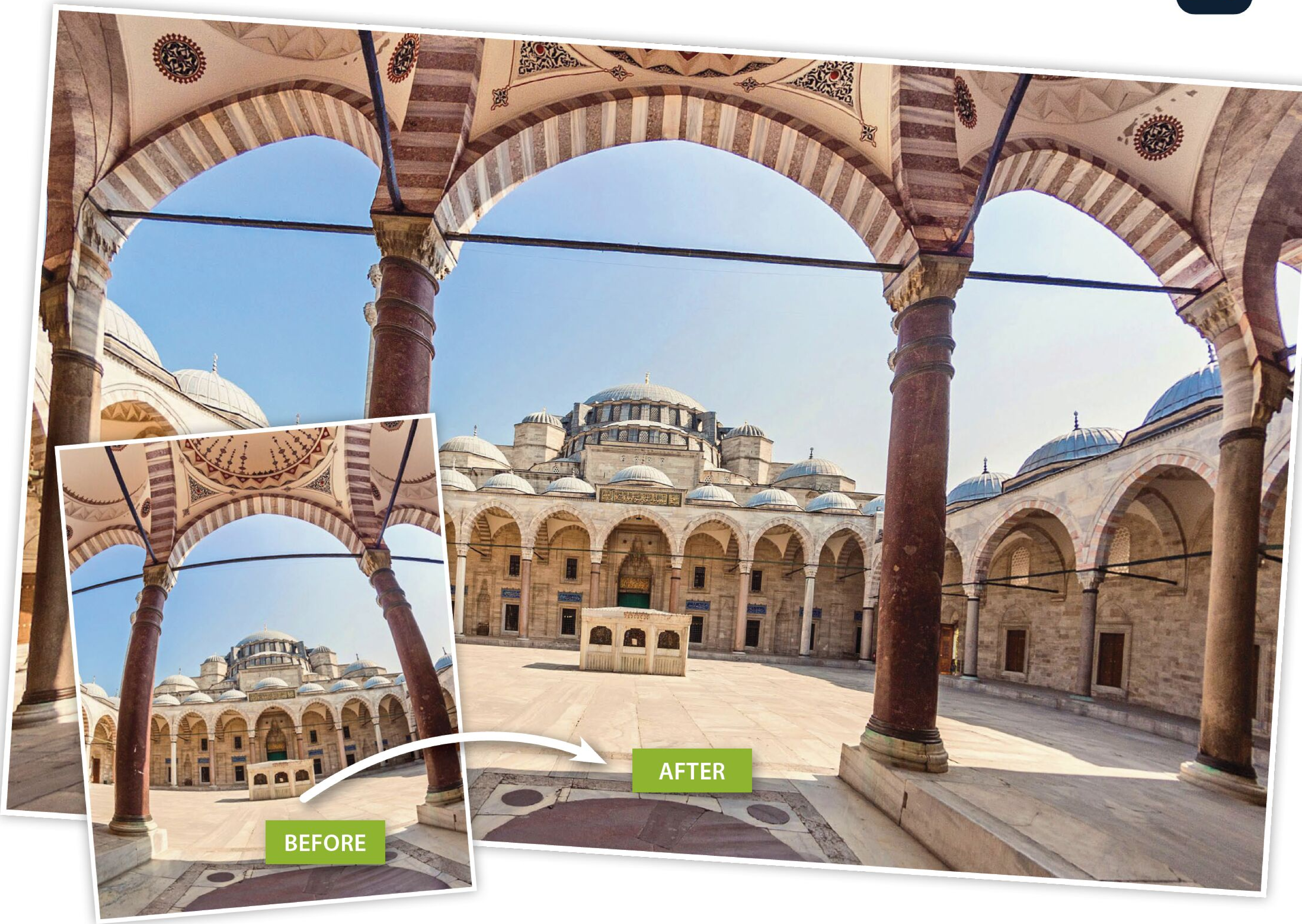

OK
Cancel
✓ Fisheye
Perspective
Auto
Full Spherical
ocal Length 17.21
rop Factor 1.00
As Shot

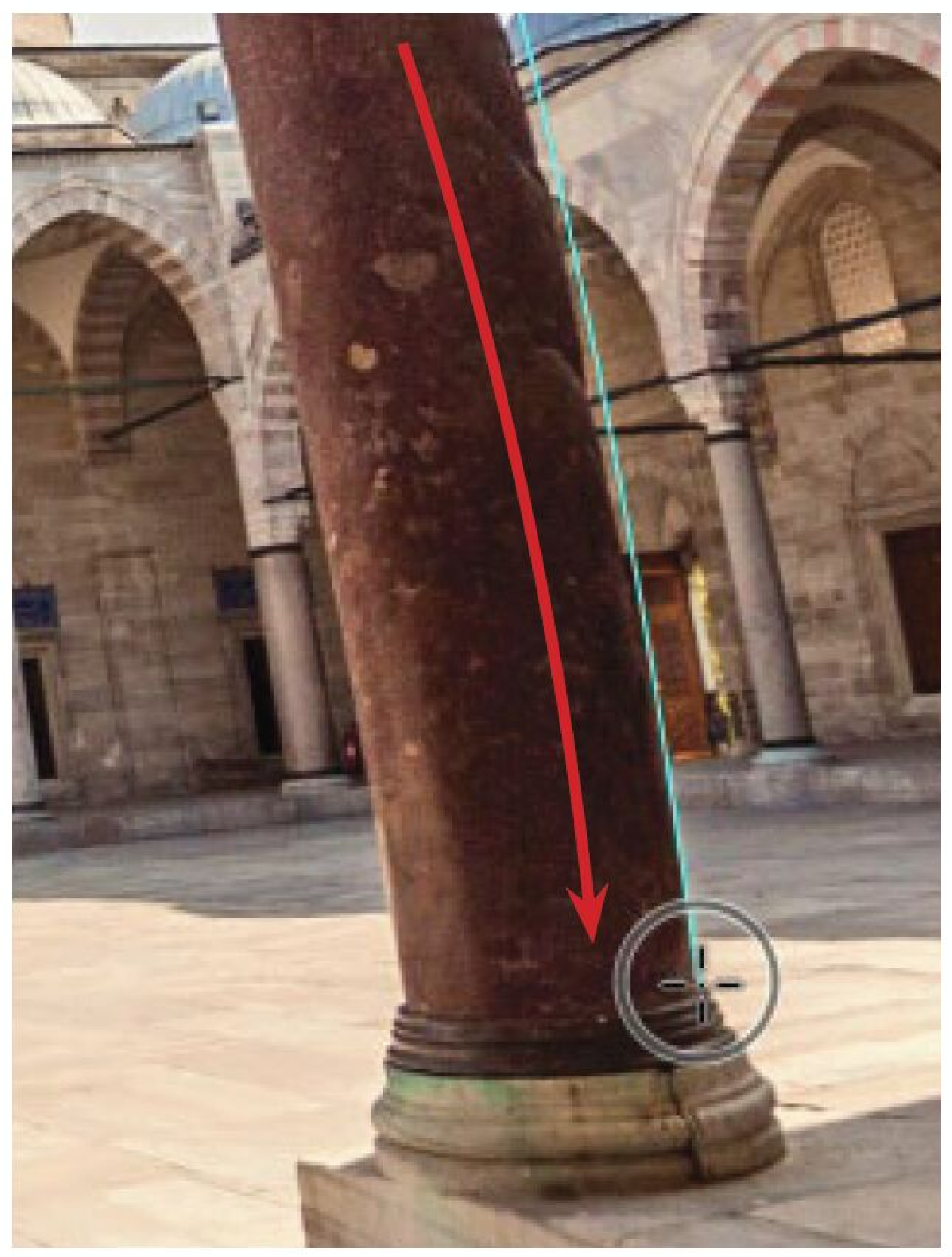


02 In the Adaptive Wide Angle interface, first select the Constraint Tool from the panel on the upper left of the main screen and select Fisheye from the Correction drop-down menu. Pick one of the vertical lines, in this case the pillars in the foreground, click near the top of it and drag a line down the length of it. You should find that the line will automatically curve to follow the line, but you can drag the control handle in the mid-point of the line to match it up to the curvature.

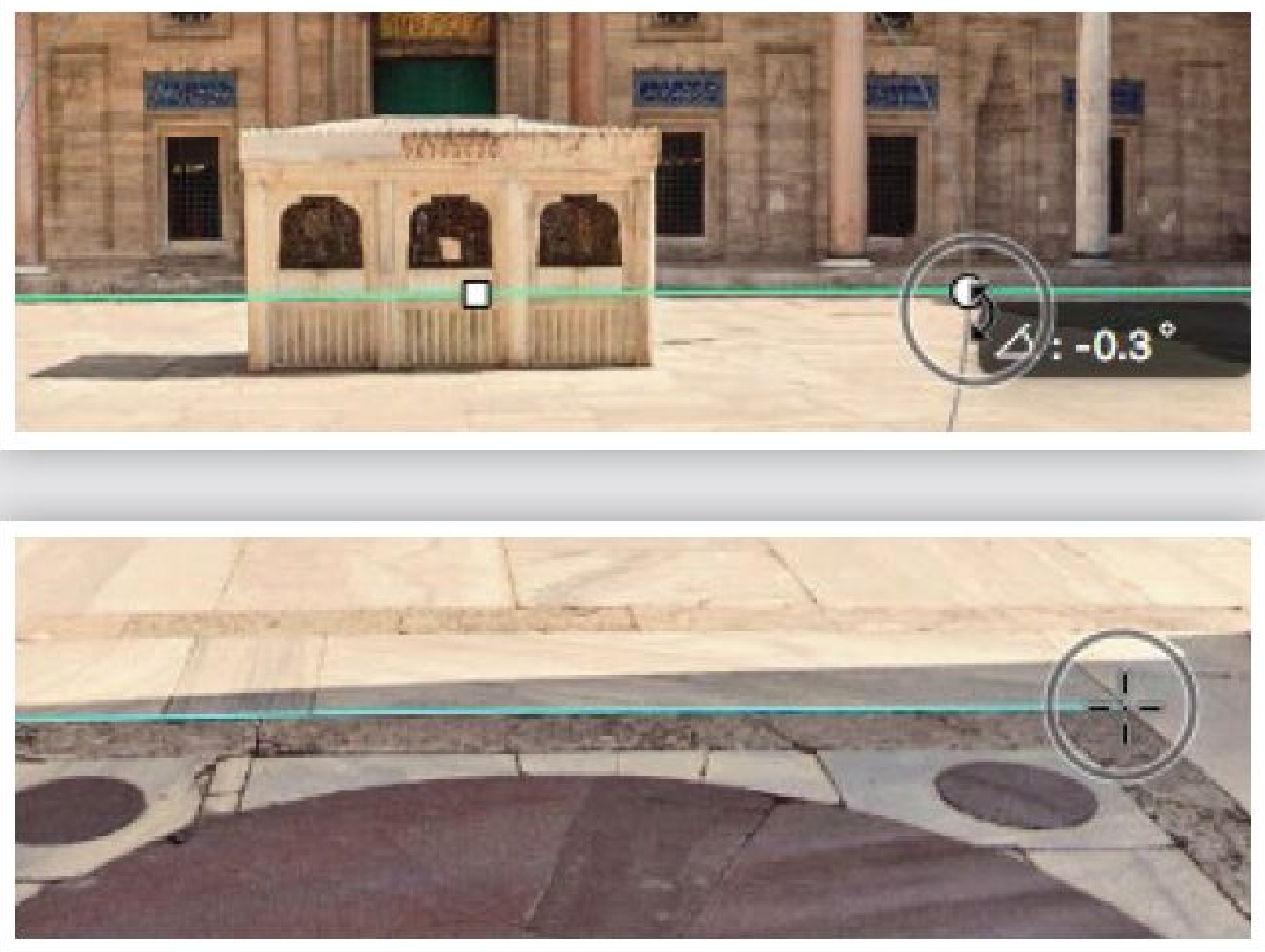


03 The line will automatically warp the picture to make the curved line straight. You'll see that there is a circle overlaid on the line, with two more control handles where they intersect. You can drag these handles, rotating the line to bring it into a vertical position. If you hold down the shift key it will automatically snap to vertical right away.

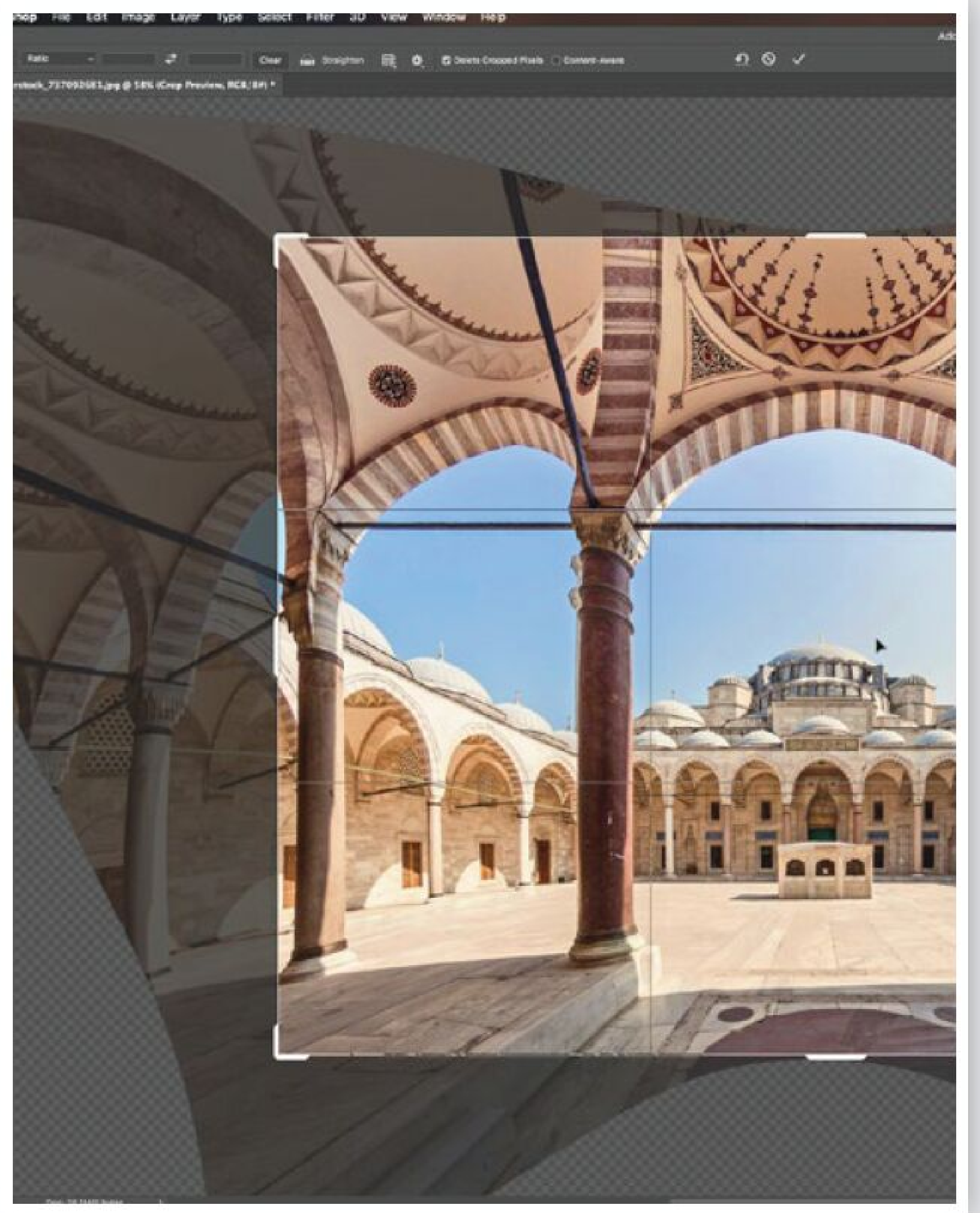




04 Pick a line on the opposite side of the picture and repeat the process by dragging a line down the uprights of the pillars ranged on the right of the image. This too will automatically straighten up the line.



05 Again, drag the handle on the circular line to move the upright into a vertical position. If you've done it right the vertical curvature distortion of the image should now be looking better. You may notice that the correction isn't quite perfect; there may still be some slight curvature of the various uprights and horizontals, but it's certainly a great improvement and the vertical structures are much straighter. You can carry on and try to correct more of the curvature, but be aware of how much warping is being applied to the image to straighten everything out. Click OK when you're done to finalise the correction.



06 The process will have left some empty spaces at the edges of the image, so it will be necessary to crop the image to remove these. This does mean losing some of the original photograph, but the result is much less distorted than it was at the start.

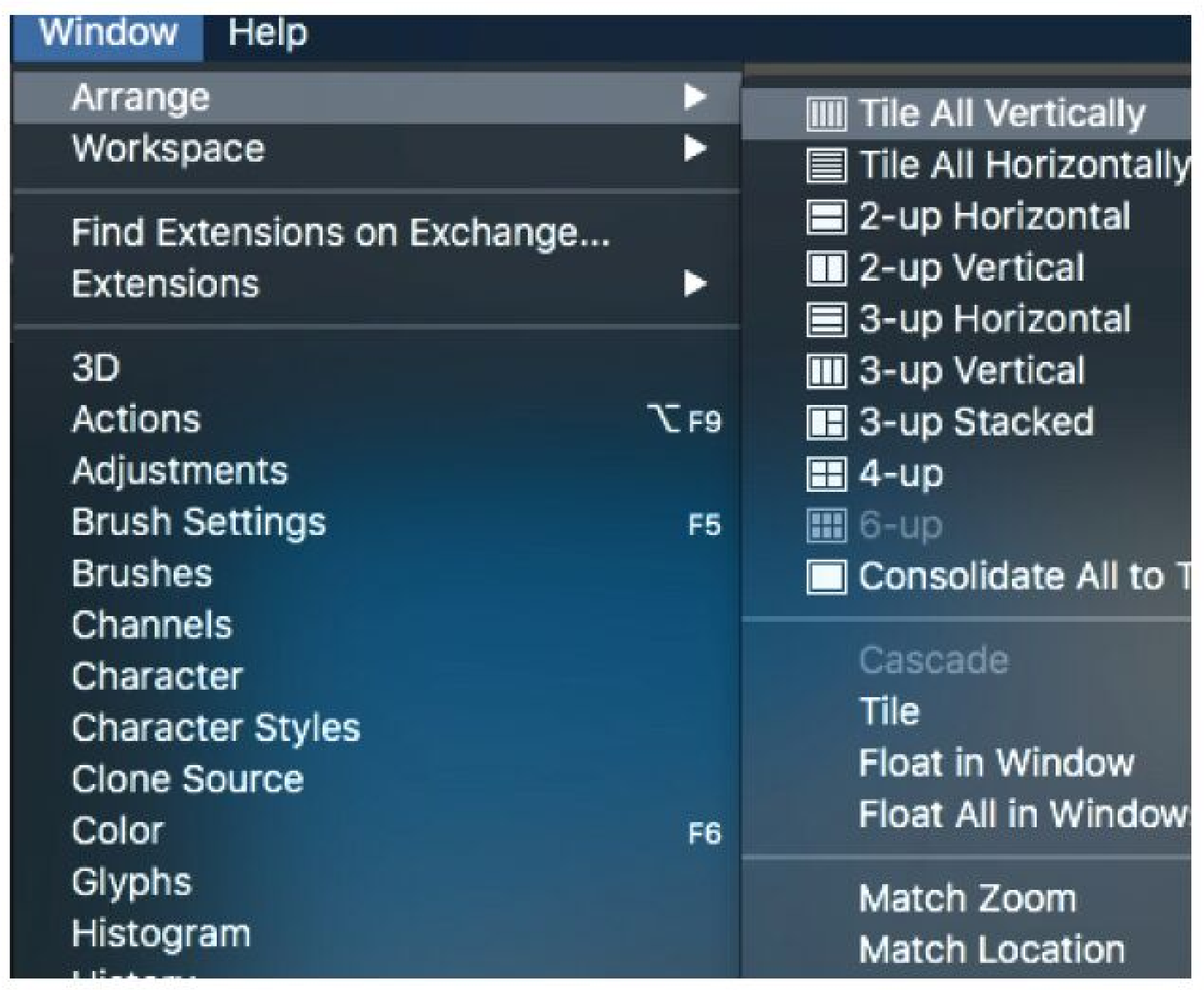
Panorama Stitching

Get the whole of the landscape into one ultra-wide picture

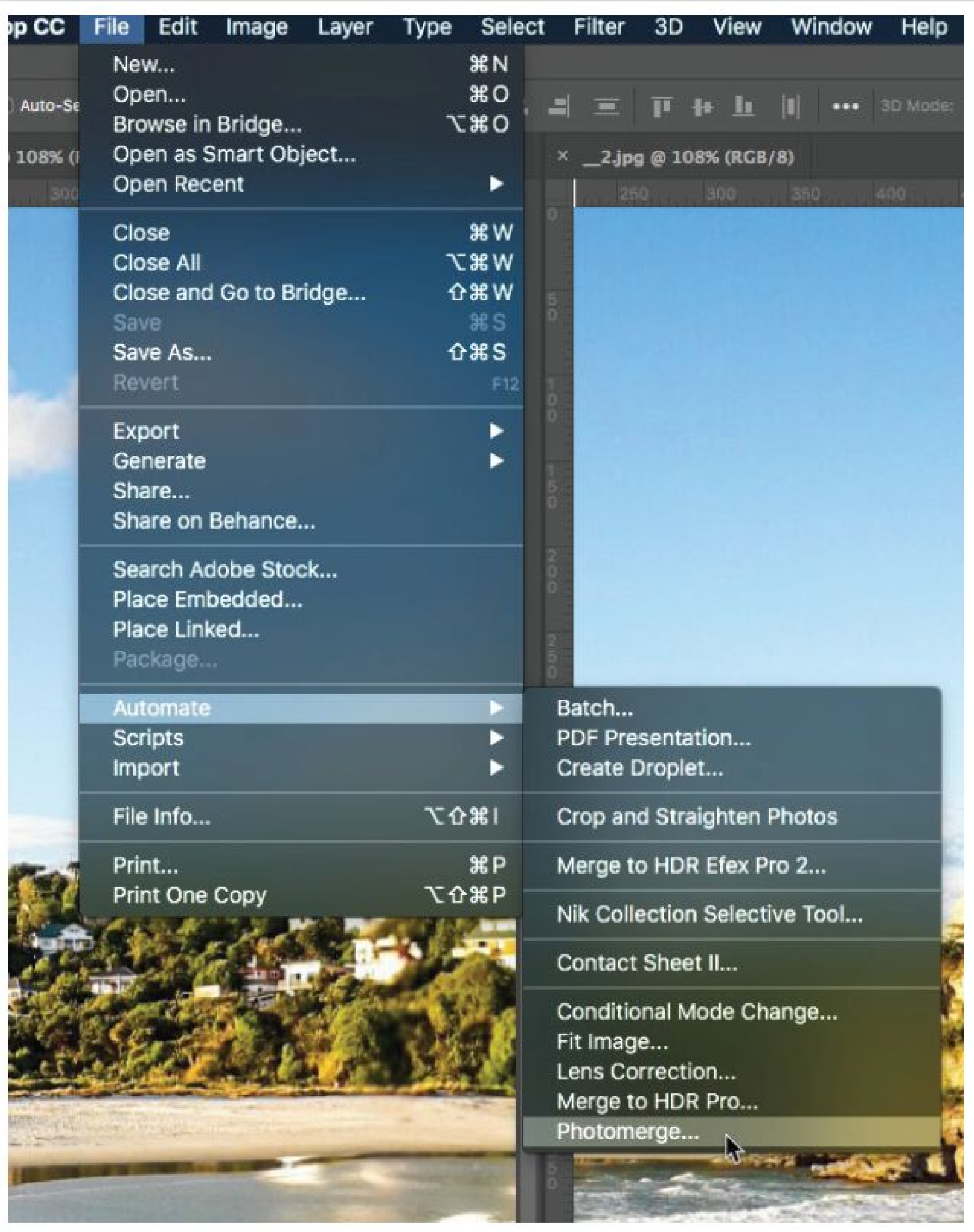
Many digital cameras have a feature known as "Panorama Stitching" or "Panorama Assist" mode. It's there to help with a particular type of photograph, or rather series of photographs, in which successive shots are taken as the camera is panned across a scene. After you take the first shot, the camera shows the edge of that shot superimposed on the monitor so you can match up the position of features in successive shots, producing a long continuous photo showing an entire panoramic scene. You can also shoot your pan sequence manually, especially if you have a tripod handy to keep the camera level. When it's done well the results can be breathtaking, but getting a satisfactory result isn't as easy as it looks.

BEFORE

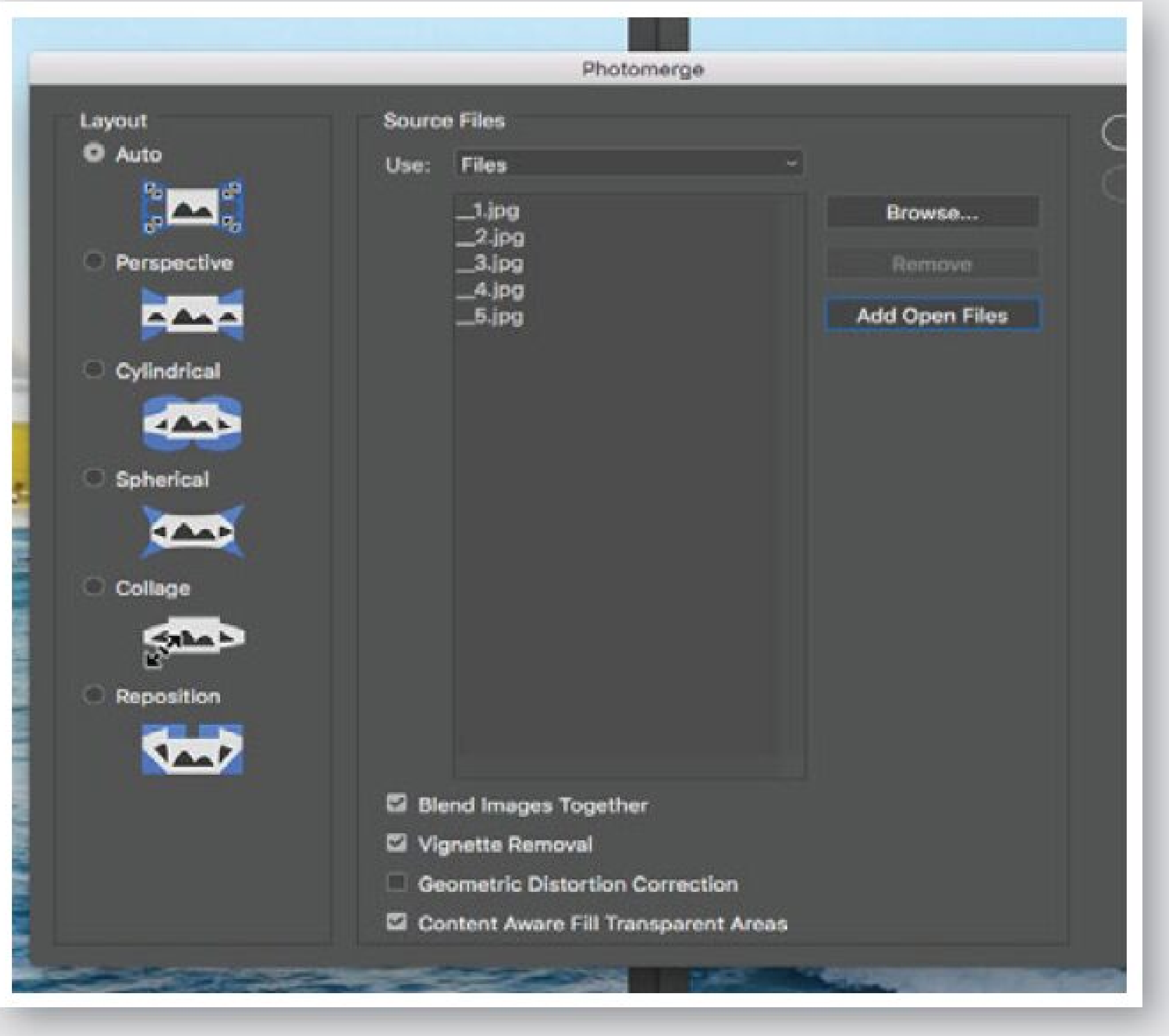
We'll use this example of a five-shot sequence taken at a sweeping beach location.


Window
Help
Arrange
Workspace
Find Extensions on Exchange...
Extensions
3D
Actions ⌥F9
Adjustments
Brush Settings F5
Brushes
Channels
Character
Character Styles
Clone Source
Color F6
Glyphs
Histogram
Tile All Vertically
Tile All Horizontally
2-up Horizontal
2-up Vertical
3-up Horizontal
3-up Vertical
3-up Stacked
4-up
6-up
Consolidate All to T
Cascade
Tile
Float in Window
Float All in Window
Match Zoom
Match Location

01 Having downloaded our panorama pictures from the camera into a folder on the PC, it's time to fire up Photoshop and stitch them together into a panorama. Locate the files on your hard drive and open all of them in Photoshop. If you go to the Window > Arrange menu you can view them all at once in various arrangements. Not essential, but it gives you a chance to make a last-minute exposure check.


File
Edit
Image
Layer
Type
Select
Filter
3D
View
Window
Help
New... ⌘N
Open... ⌘O
Browse in Bridge... ⌥⌘O
Open as Smart Object...
Open Recent
Close ⌘W
Close All ⌥⌘W
Close and Go to Bridge... ⇧⌘W
Save ⌘S
Save As... ⇧⌘S
Revert F12
Export
Generate
Share...
Share on Behance...
Search Adobe Stock...
Place Embedded...
Place Linked...
Package...
Automate
Scripts
Import
File Info... ⌥⇧⌘I
Print... ⌘P
Print One Copy ⌥⇧⌘P
Batch...
PDF Presentation...
Create Droplet...
Crop and Straighten Photos
Merge to HDR Efex Pro 2...
Nik Collection Selective Tool...
Contact Sheet II...
Conditional Mode Change...
Fit Image...
Lens Correction...
Merge to HDR Pro...
Photomerge...
_2.jpg @ 108% (RGB/8)

02 In Photoshop you'll find Photomerge in the File menu under Automate, along with several other automatic processes.


Photomerge
Layout
Auto
Perspective
Cylindrical
Spherical
Collage
Reposition
Source Files
Browse...
Remove
Add Open Files

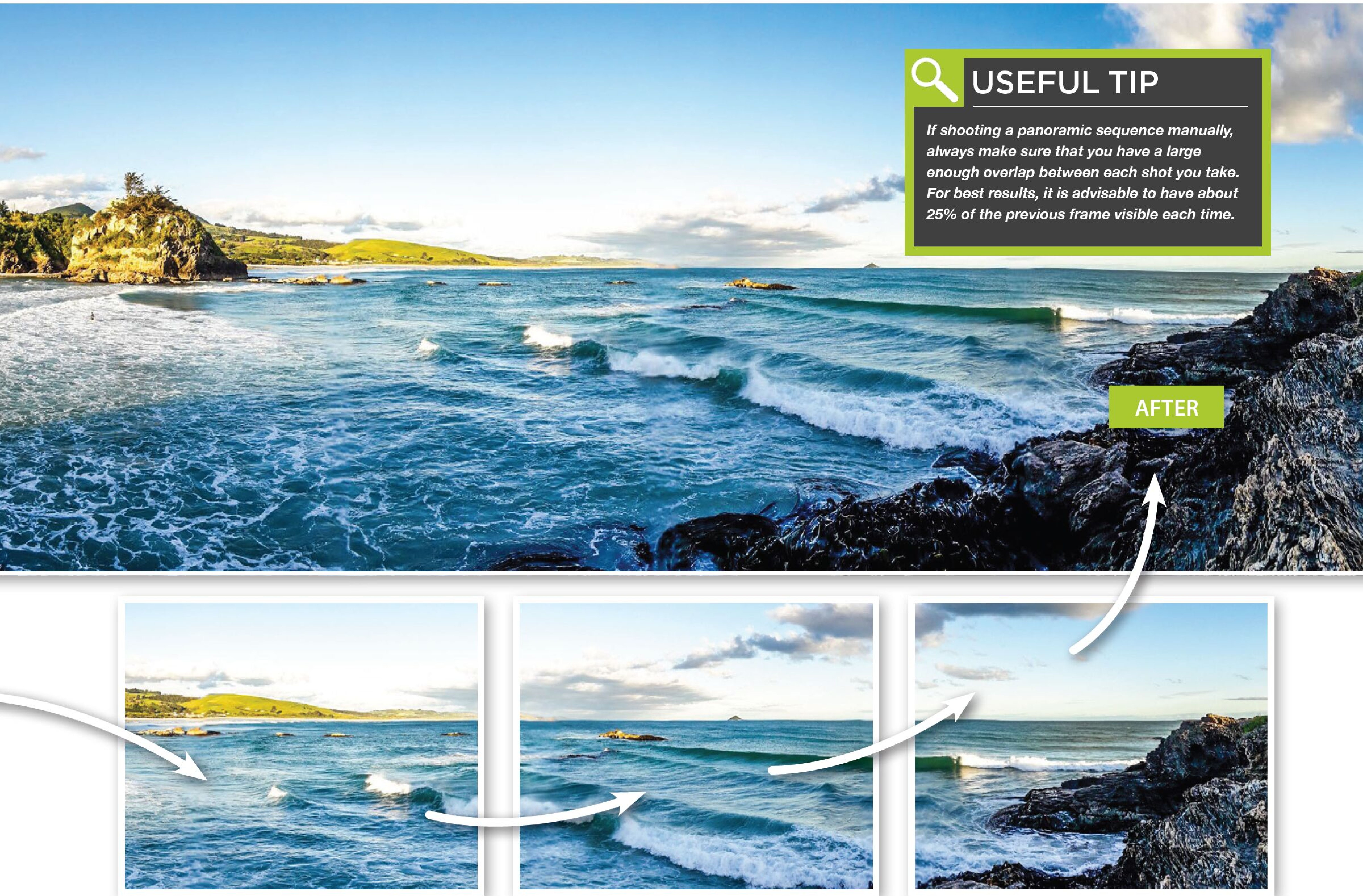
Layout: ● Auto

Use: Files

_1.jpg
_2.jpg
_3.jpg
_4.jpg
_5.jpg

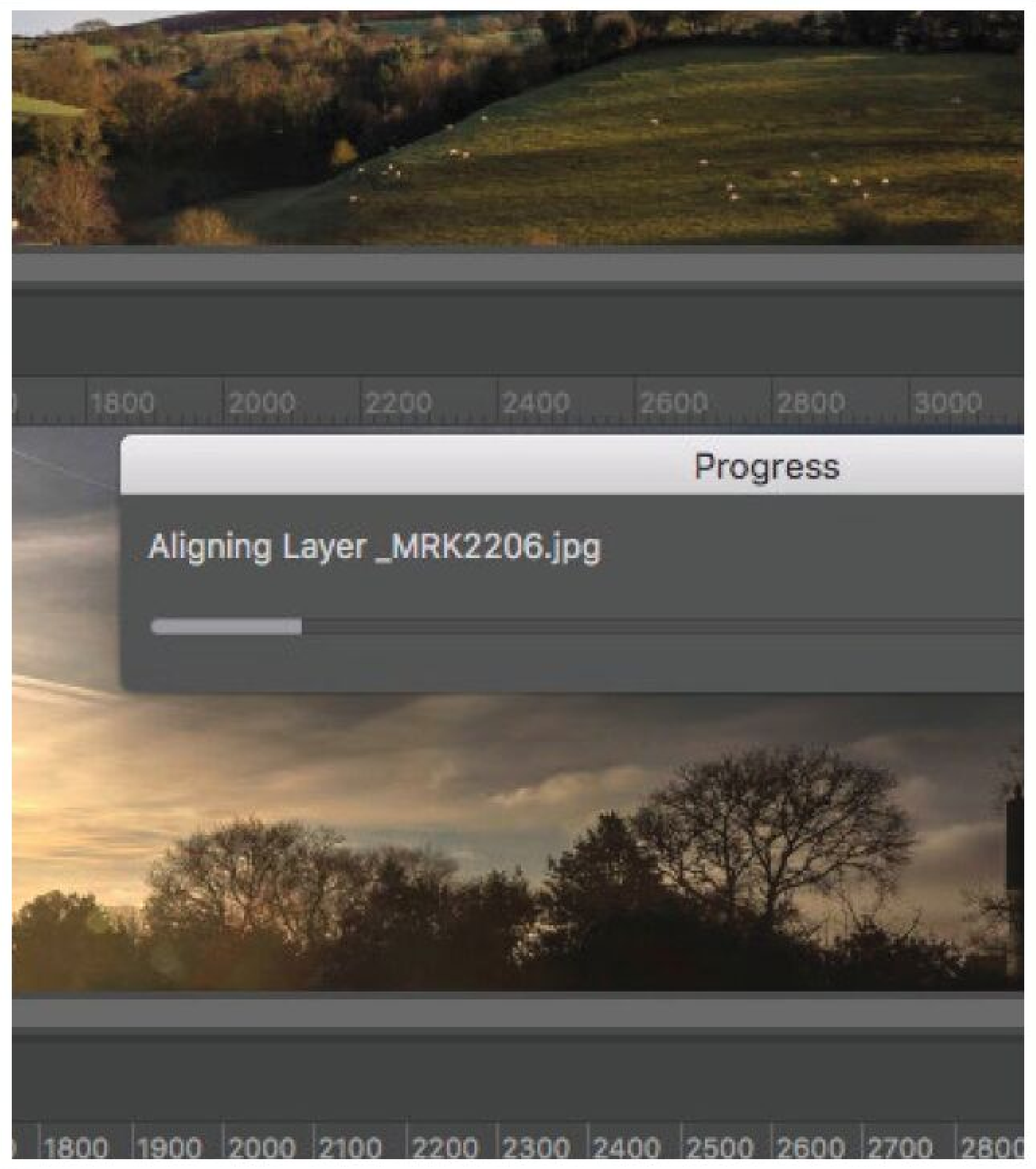
☑ Blend Images Together
☑ Vignette Removal
☐ Geometric Distortion Correction
☑ Content Aware Fill Transparent Areas

03 The Photomerge window offers a number of options for how to arrange your panoramic shots. For a simple landscape panorama like this the Auto option should work fine. Click on the Add Open Files button to add the five shots to the Photomerge list and check the top two options and the bottom option to attempt to fill blank areas with the Content Aware tool.



USEFUL TIP

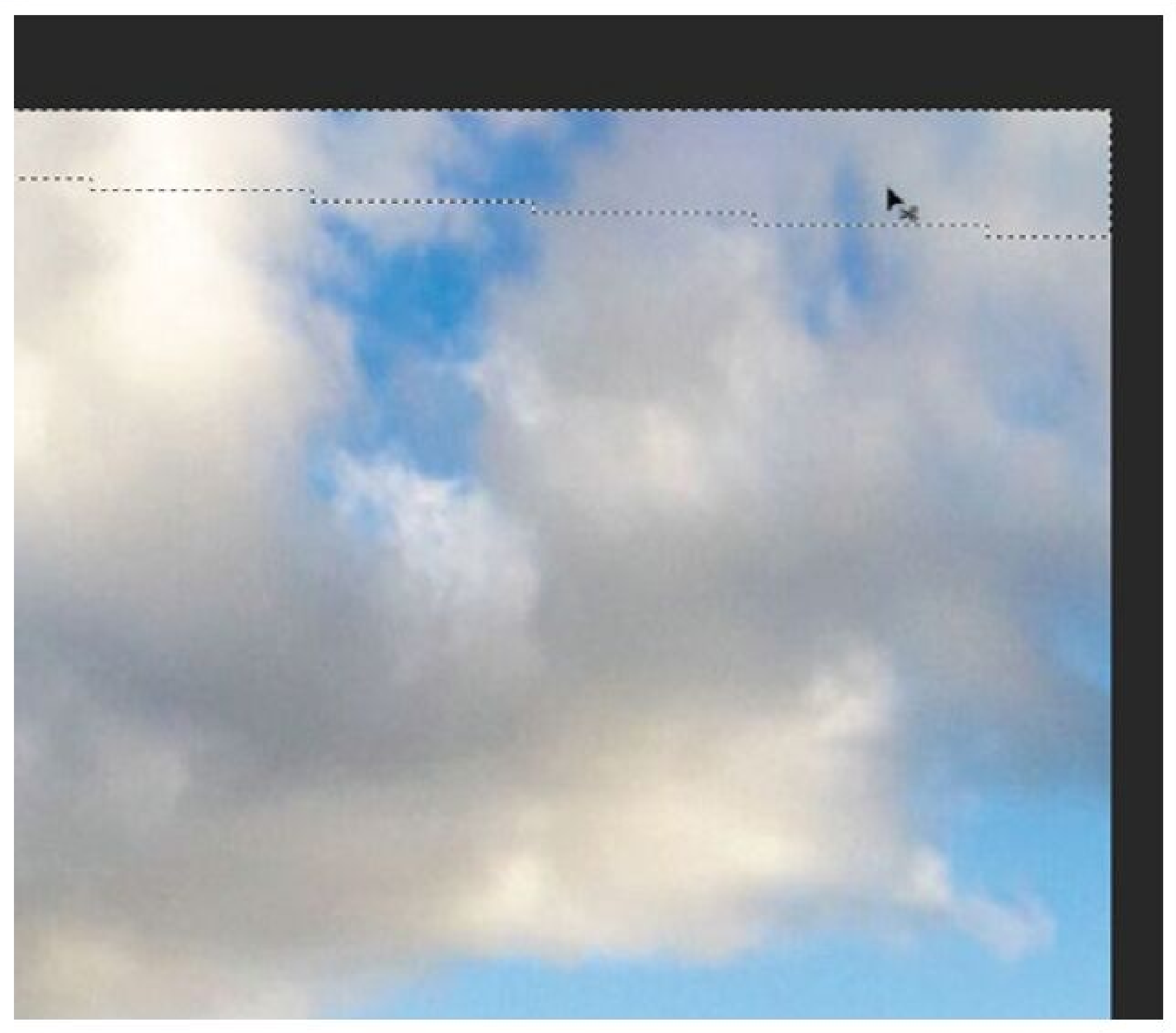
If shooting a panoramic sequence manually, always make sure that you have a large enough overlap between each shot you take. For best results, it is advisable to have about 25% of the previous frame visible each time.



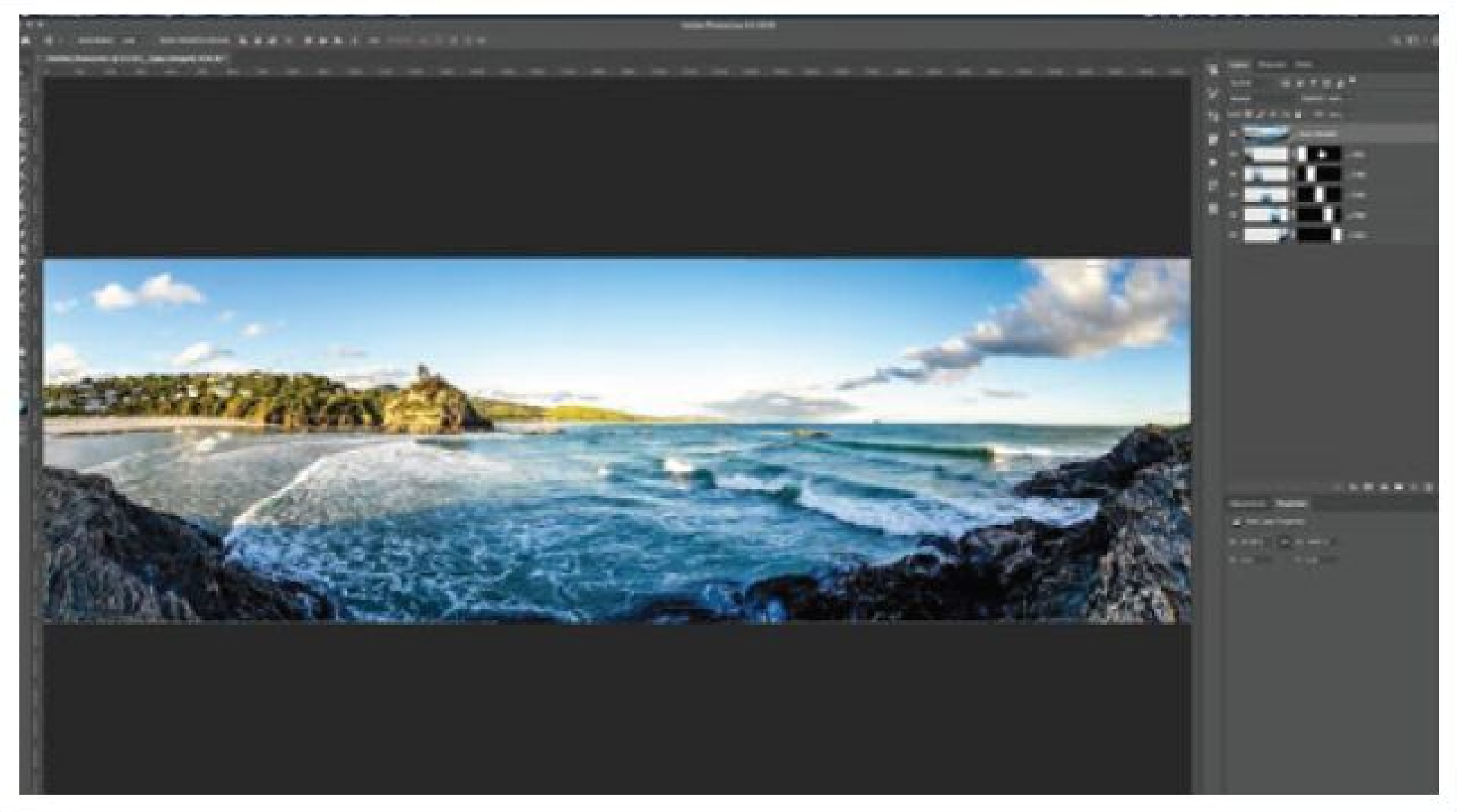
Progress

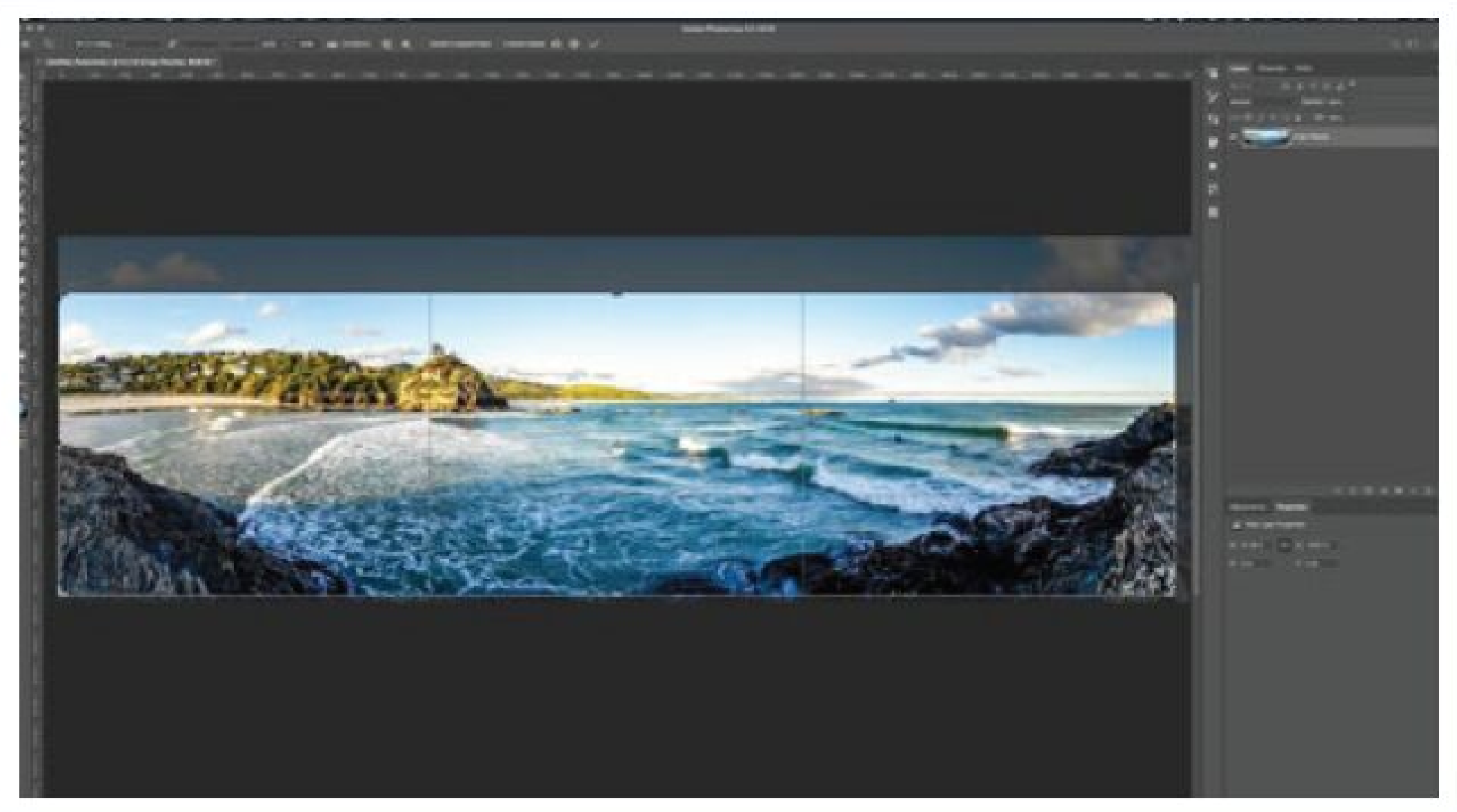
Aligning Layer _MRK2206.jpg

04 Once you click OK the merging process starts and it is completely automatic. It will take a while to complete, possibly quite a long while if you have a slow computer and/or very large image files.



05 Once the Panorama has been rendered, you'll see that there are areas where the program has had to warp the pictures to correct for perspective. This is where the Content Aware Fill tool will have attempted to add something that looks a bit like sky and sea. Depending on how well the fill works, you can always crop out these areas.



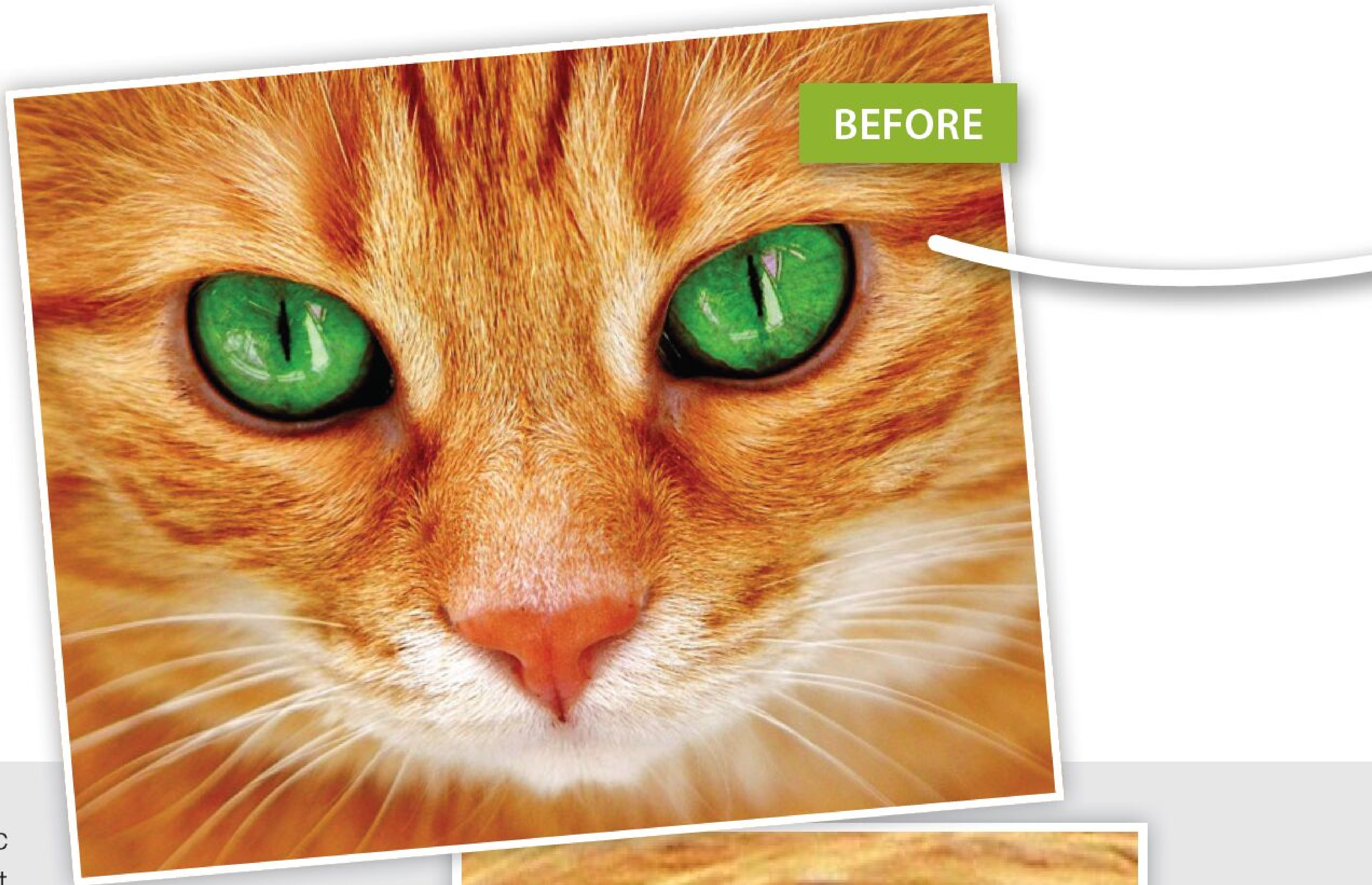


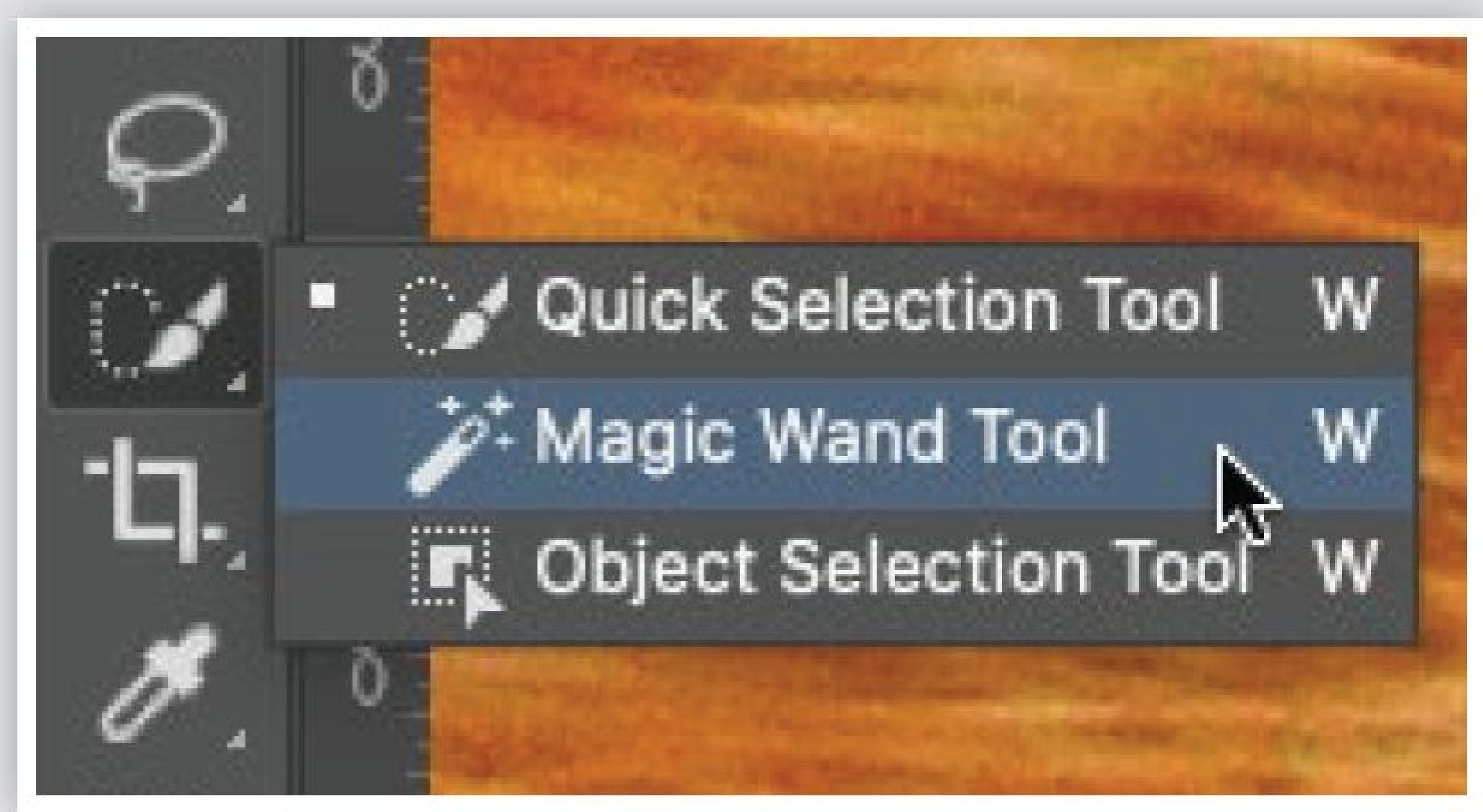
06 You can also use the Crop tool to straighten out any slight tilt in your horizon, but hopefully you won't need it. The finished result should look something like this.

Colour Replacement

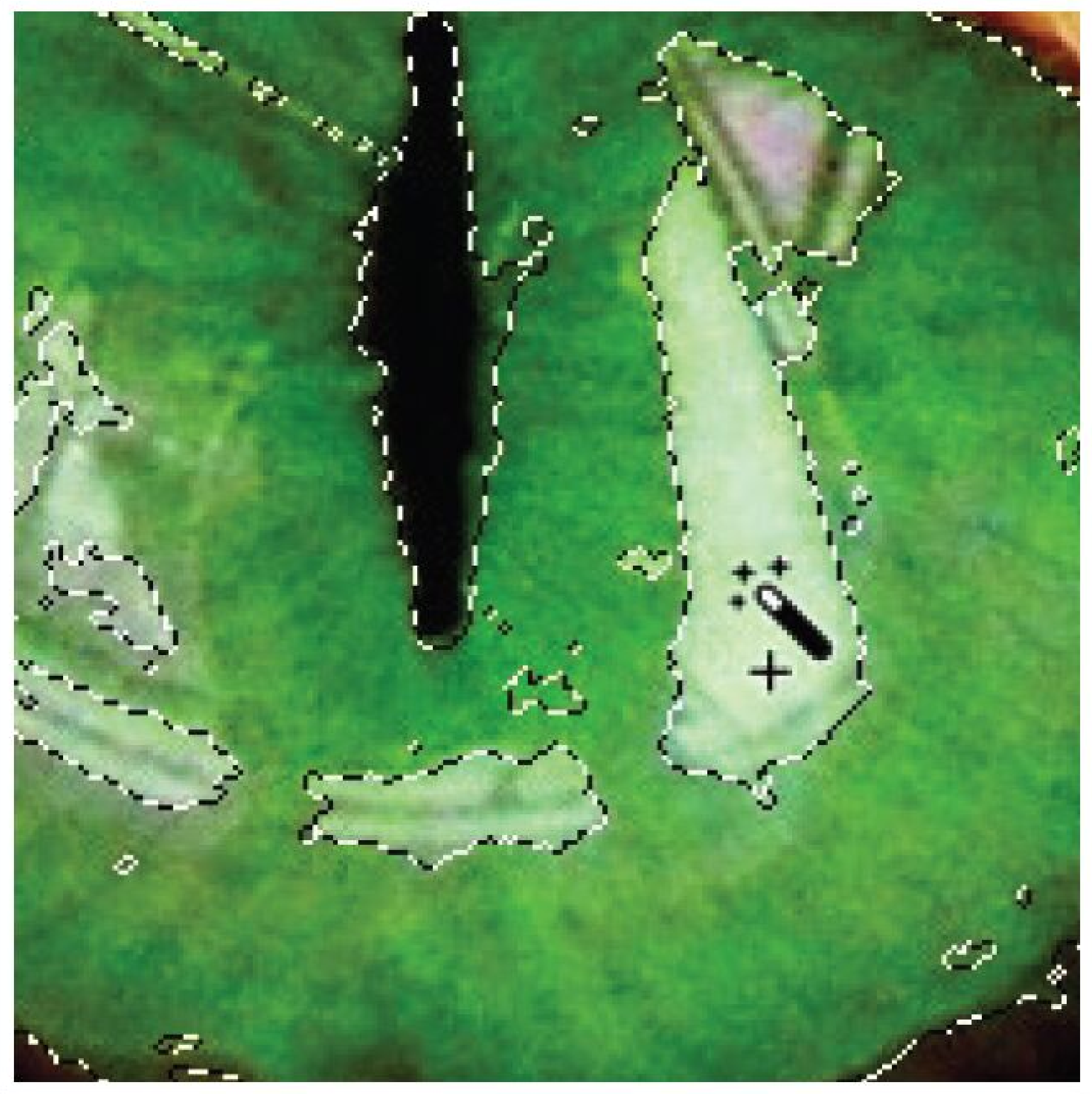
Swapping one colour for another

One relatively simple operation that you can do in Photoshop is to replace one colour with another. By using some of the selection tools we looked at earlier, along with the Hue/Saturation controls, we can change the colour of individual objects in our photos, such as replacing the colour of the cat's green eyes in this shot.

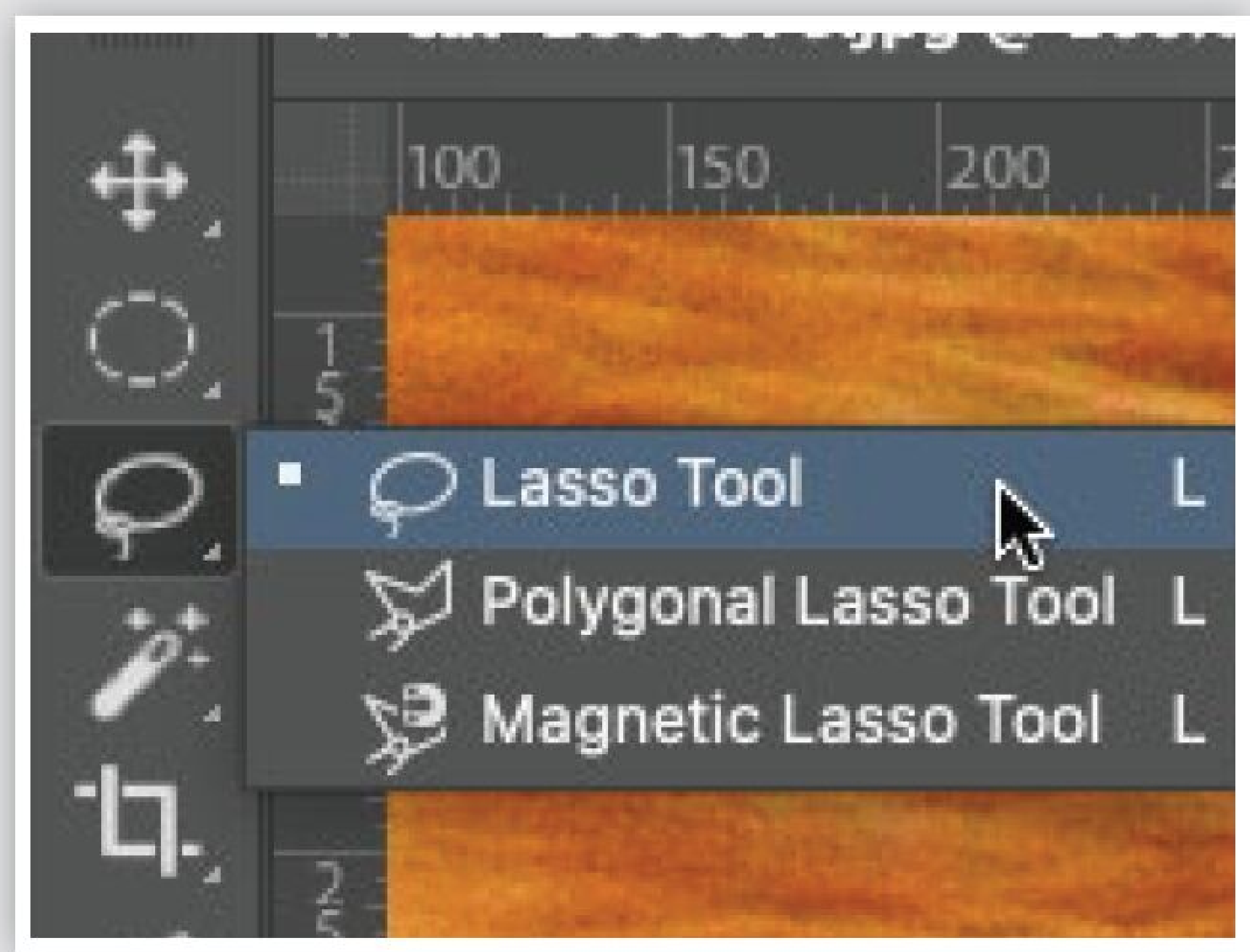




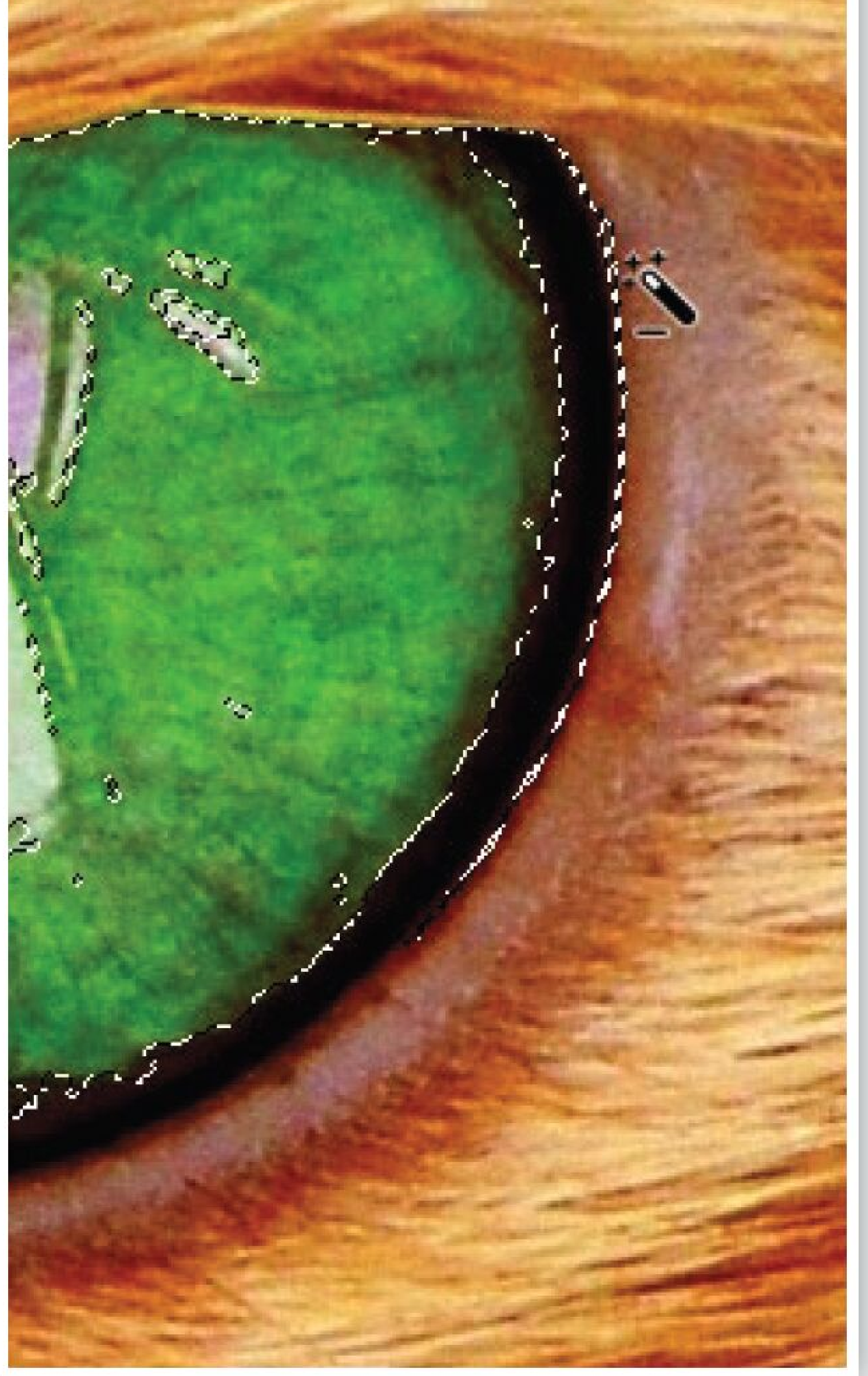
01 Selecting large areas of the same colour is one of those few occasions where the Magic Wand tool is actually useful, so we'll use it as a starting point here. With a tolerance setting of 40-50 it should be able to pick out the items without too much trouble.



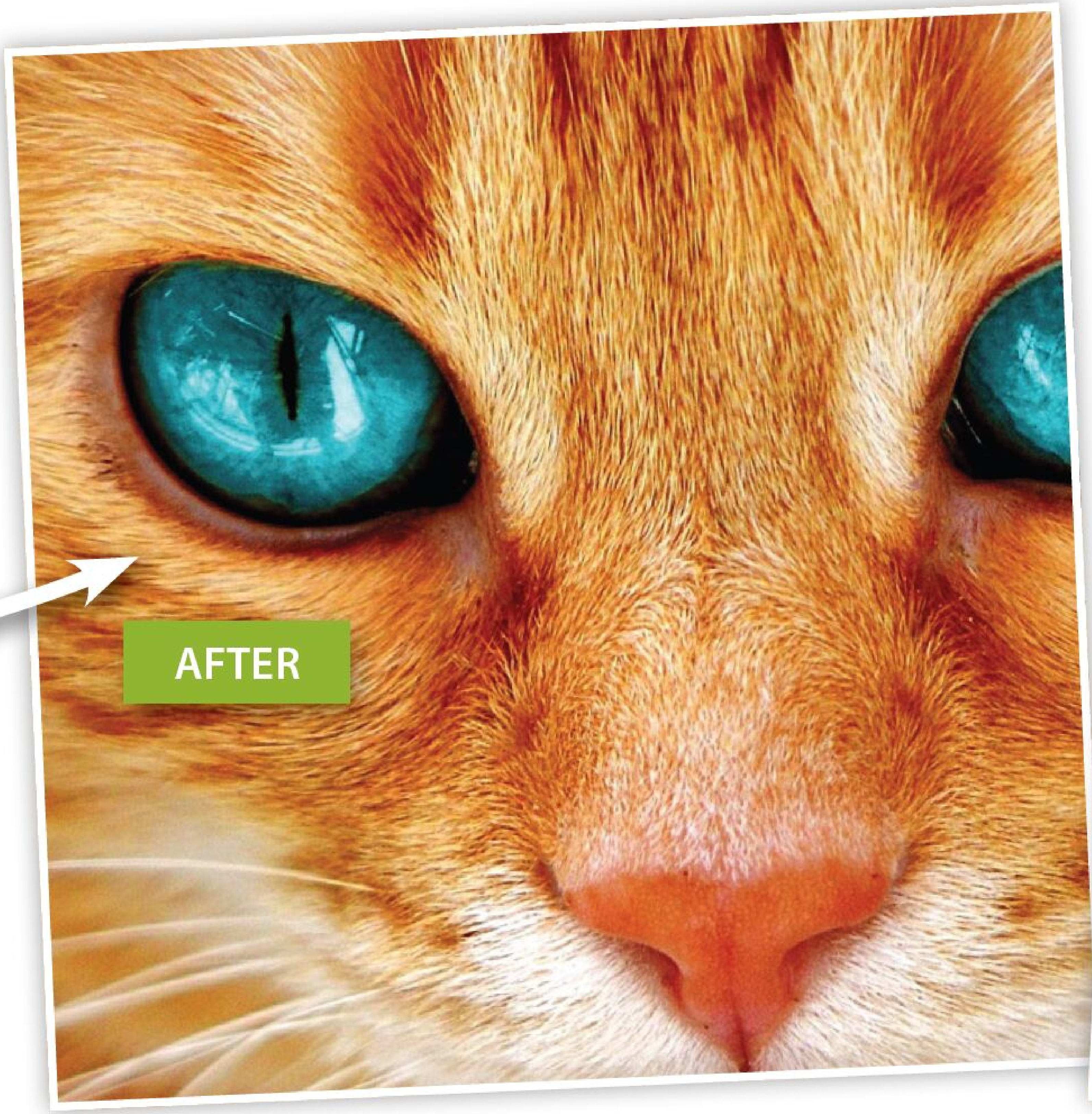
02 With the Magic Wand, it's best to add a bit at a time. Click on an area that's a mid-tone for the total area you want to select, and you'll find that the wand tool will select an area around it. The size of the selection will depend on the tolerance setting. By holding down the Shift key and carefully clicking on areas around your starting selection, you can add more areas. If the wand selects any wrong areas, you can use Cmd+Z to undo that step, and try again more carefully, possibly adjusting the tolerance downwards if it keeps happening.

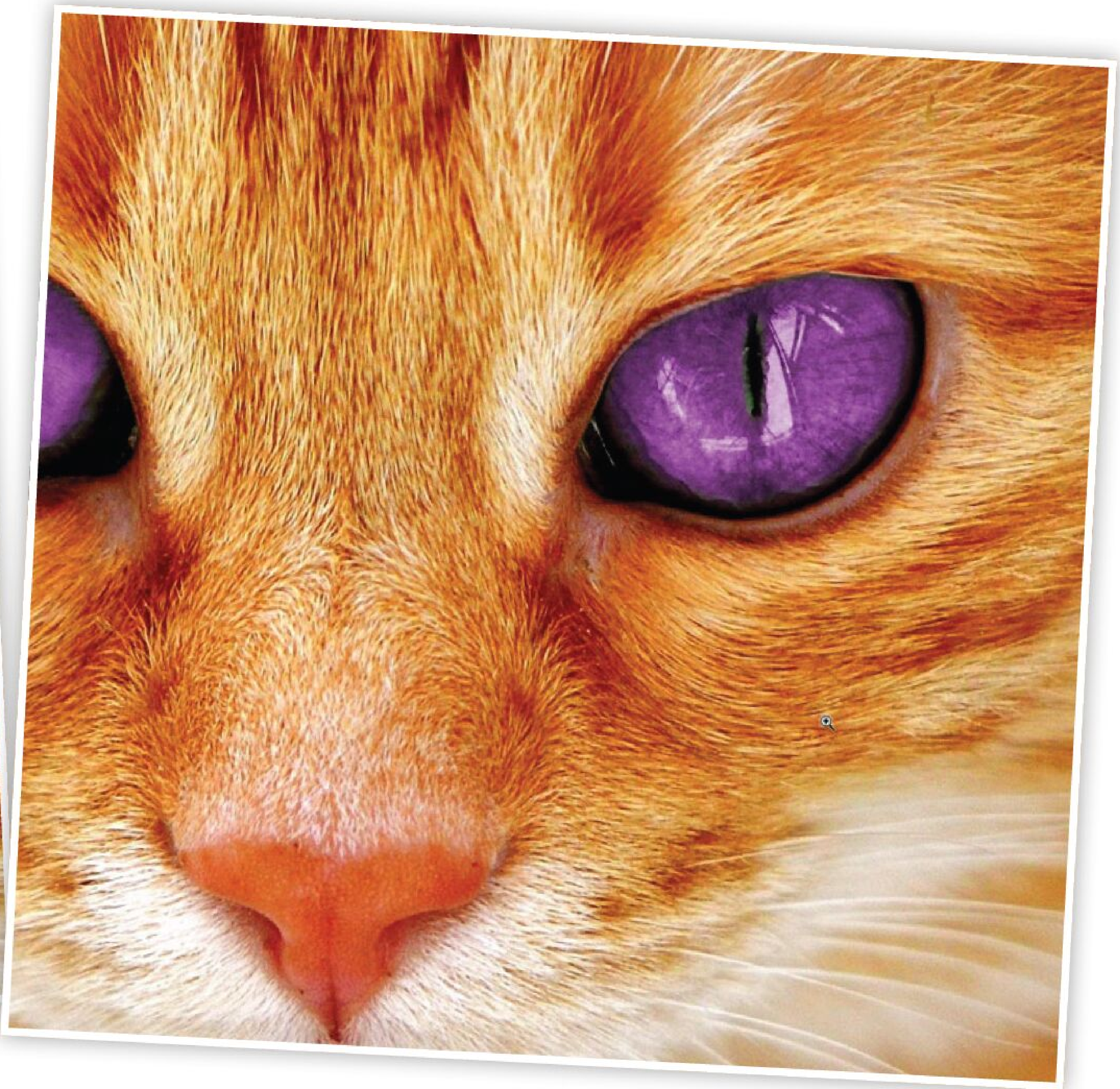


03 When you've reached the limit of what you can usefully select using the Magic Wand tool, you can finish your selection using the Lasso tool. By setting the Feather to zero you can produce a sharp-edged selection. Alternatively, use the Selection Brush tool.



04 Again hold down the Shift key to add more areas to your selection. If you need to remove any areas from the selection, such as the dark edges of the eyes, you can subtract by holding down the Alt key and going around them with the Lasso.





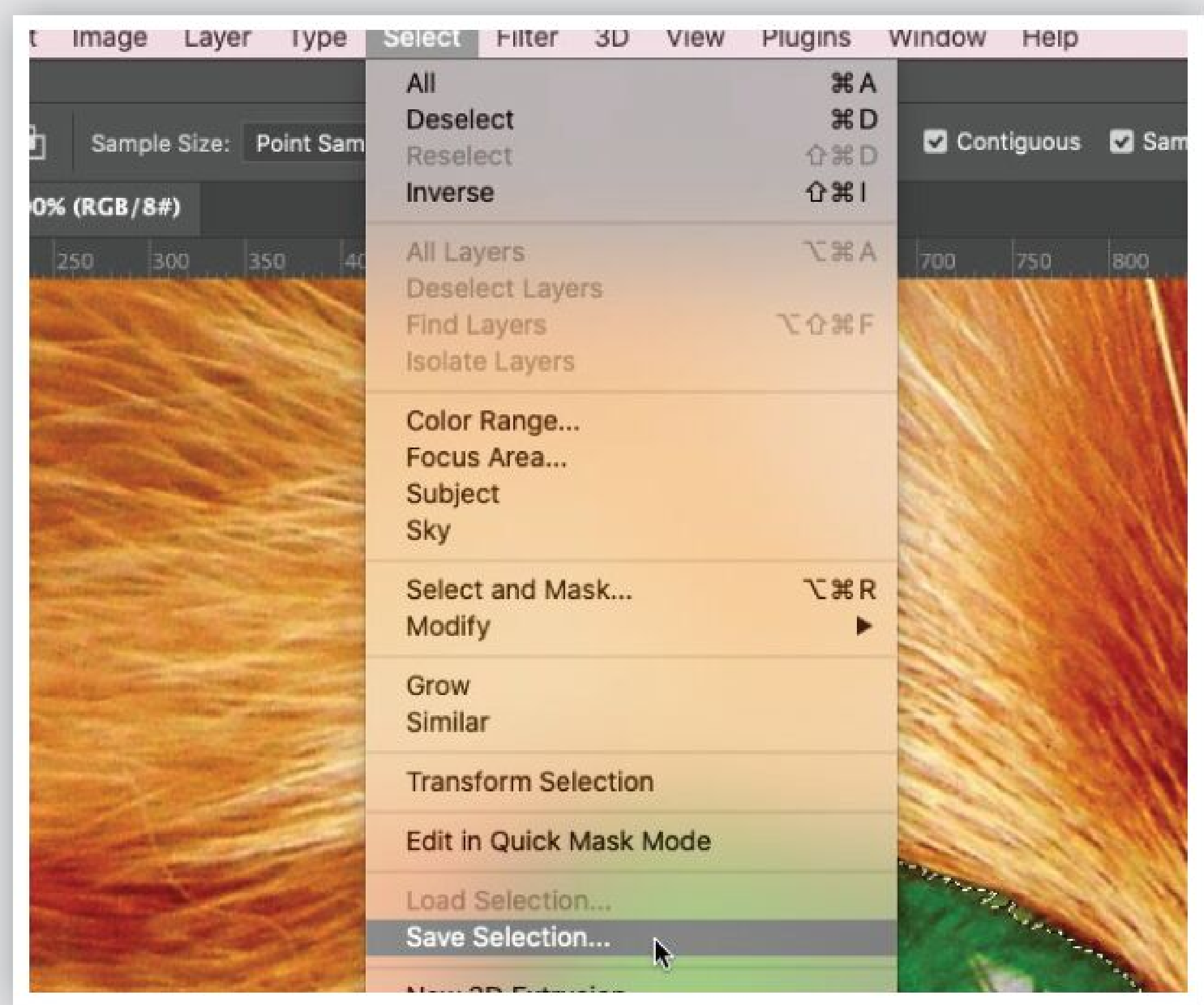


Image Layer Type Select Filter 3D View Plugins Window Help
Sample Size: Point Sam
☑ Contiguous ☑ Sam
All ⌘A
Deselect ⌘D
Reselect ⇧⌘D
Inverse ⇧⌘I
All Layers ⌥⌘A
Deselect Layers
Find Layers ⌥⇧⌘F
Isolate Layers
Color Range...
Focus Area...
Subject
Sky
Select and Mask... ⌥⌘R
Modify
Grow
Similar
Transform Selection
Edit in Quick Mask Mode
Load Selection...
Save Selection...

05 When you've selected all the bits you want to repaint, you can save the selection for later use, to save you doing all that work again if you change your mind.

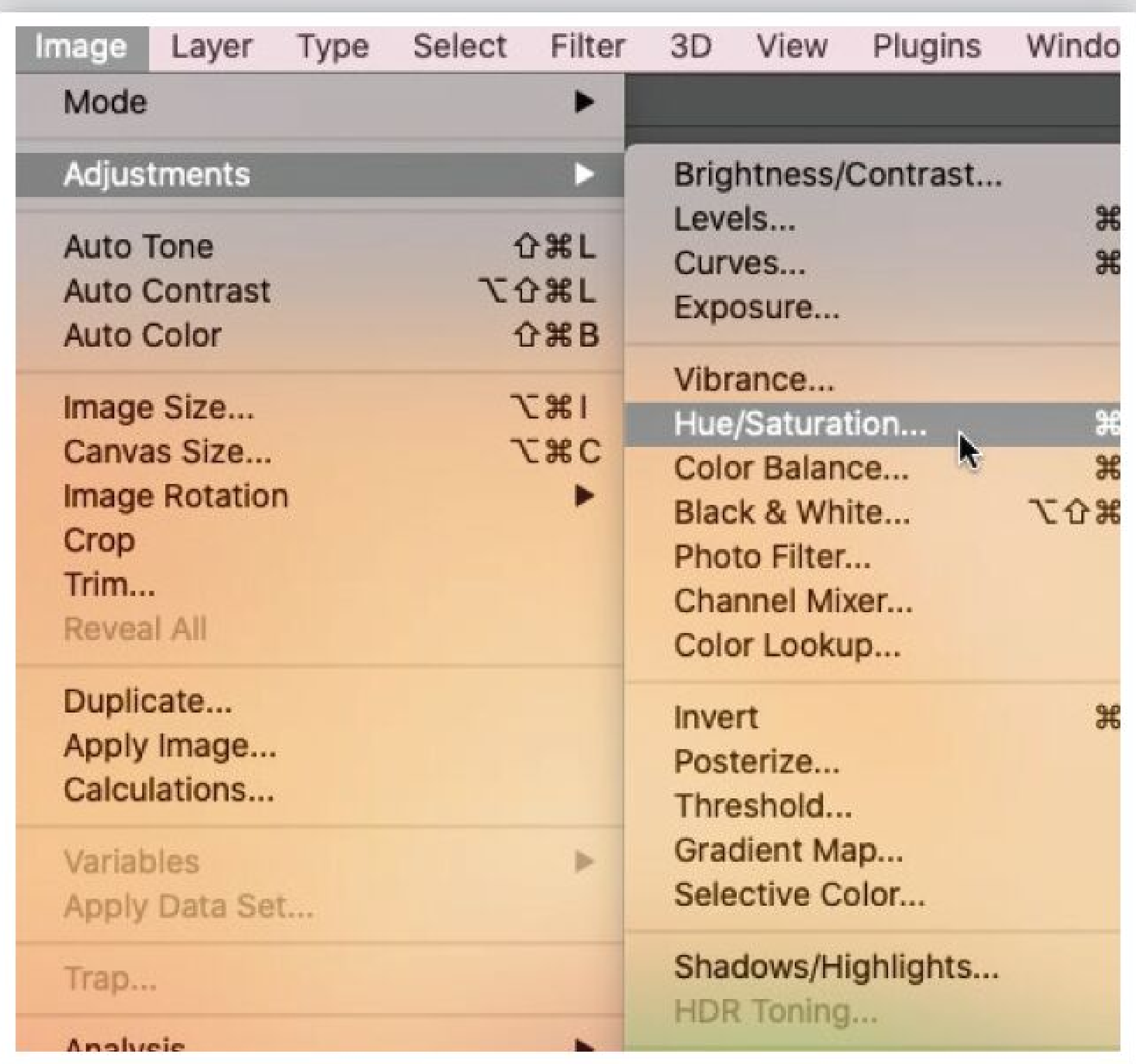
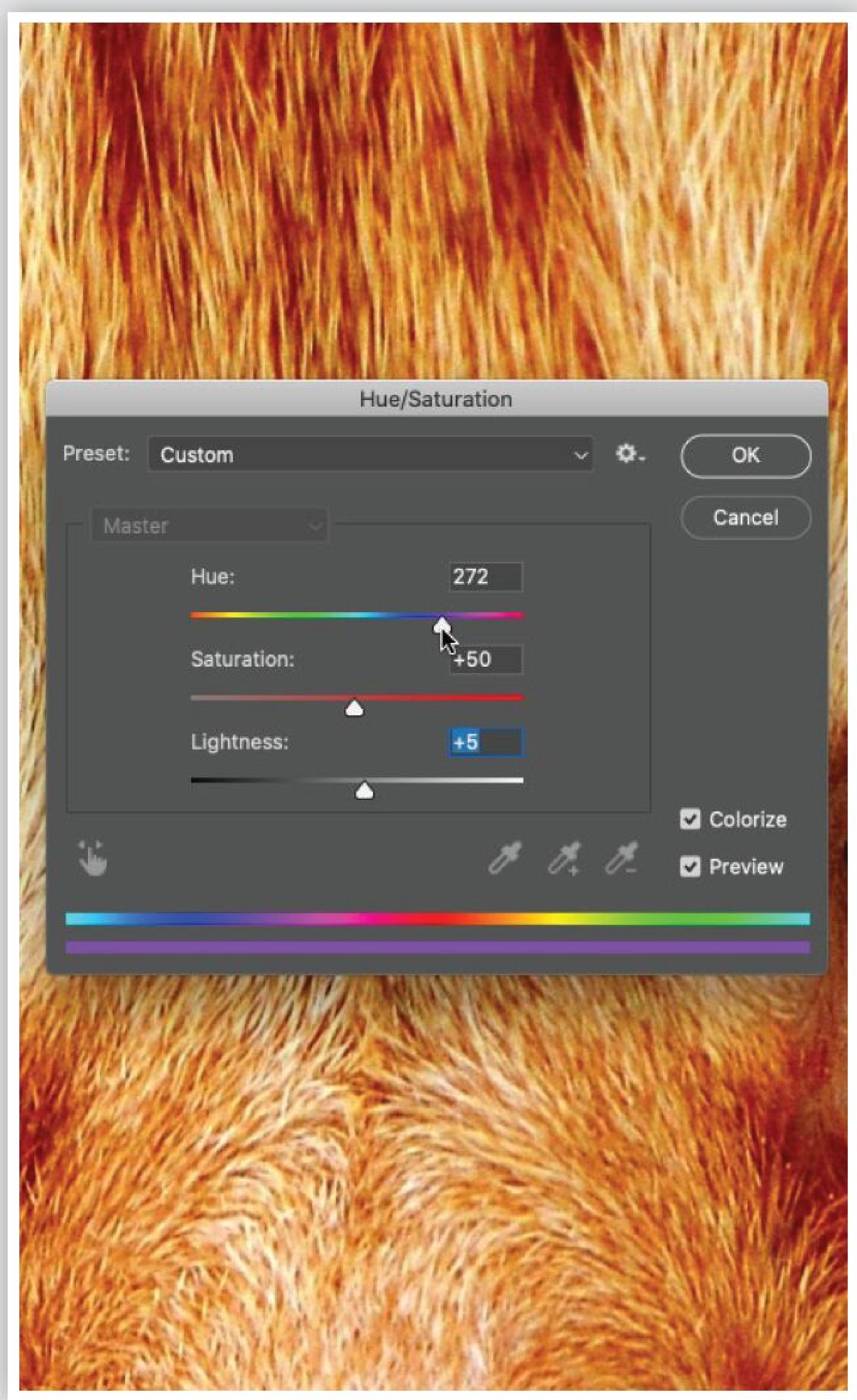


Image Layer Type Select Filter 3D View Plugins Windo
Mode
Adjustments
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation
Crop
Trim...
Reveal All
Duplicate...
Apply Image...
Calculations...
Variables
Apply Data Set...
Trap...
Analysis
Brightness/Contrast...
Levels...
Curves...
Exposure...
Vibrance...
Hue/Saturation...
Color Balance...
Black & White... ⌥⇧⌘
Photo Filter...
Channel Mixer...
Color Lookup...
Invert
Posterize...
Threshold...
Gradient Map...
Selective Color...
Shadows/Highlights...
HDR Toning...

06 Although there are several filters we could use at this point, the most versatile way to change the colour of the selected area is the Hue/Saturation/Lightness option. This is common to most editing programs. In Elements you'll find it in the Enhance menu.


Hue/Saturation
OK
Cancel
Master

Preset: Custom

Hue: 272

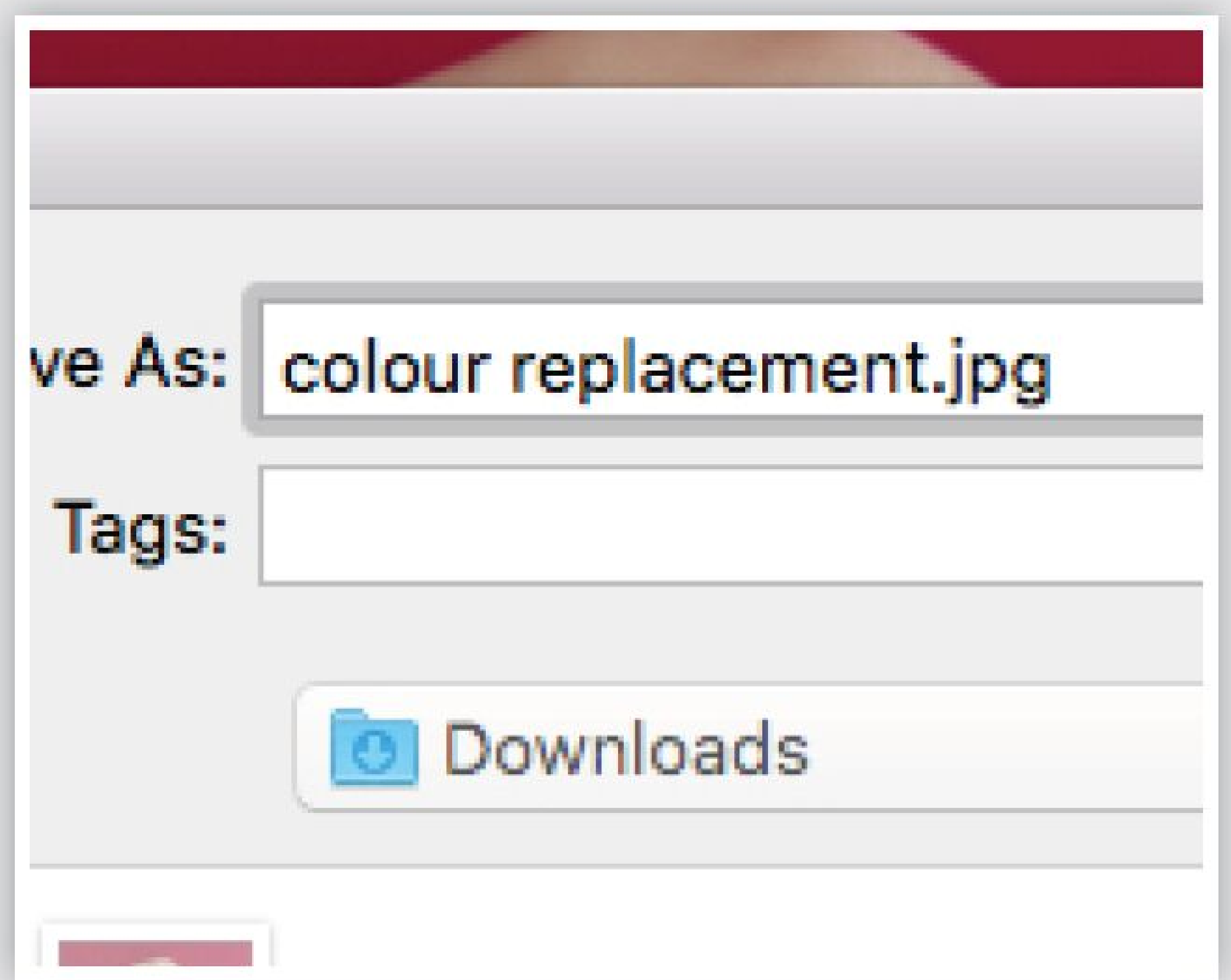
Saturation: +50

Lightness: +5

☑ Colorize

☑ Preview

07 You have three options under the Hue/Saturation setting. Leave the Lightness slider in the middle position to preserve the overall brightness of the object, but you can experiment by moving the Saturation and Hue sliders around. As you move the Hue slider, the colour will start to shift through the spectrum of colours, or you can produce subtle colour changes with lower saturation settings, or say to hell with subtlety and go for broke with full saturation or Colorize the eyes.



ve As: colour replacement.jpg

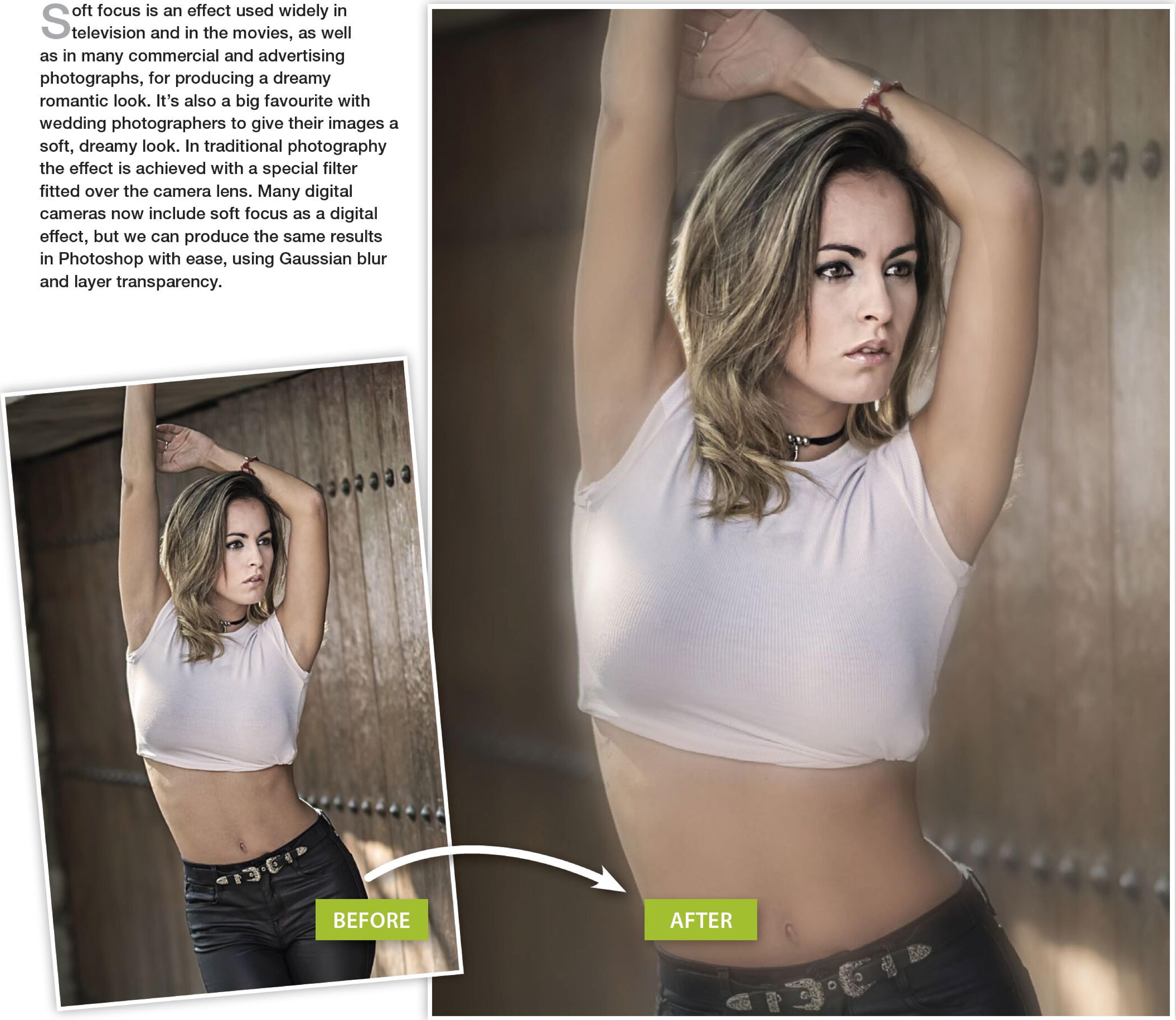
Tags:

08 When you're happy with the result, or when your eyes start bleeding, you can clear the selection by using the keyboard shortcut Cmd+D, and then save the result. When you save the final image as a .PSD file in Photoshop or Elements, the selections are saved as well, embedded in the file.

Soft Focus Technique

With a few simple steps, you can add a soft focus effect that will give your portraits a romantic feel

Soft focus is an effect used widely in television and in the movies, as well as in many commercial and advertising photographs, for producing a dreamy romantic look. It's also a big favourite with wedding photographers to give their images a soft, dreamy look. In traditional photography the effect is achieved with a special filter fitted over the camera lens. Many digital cameras now include soft focus as a digital effect, but we can produce the same results in Photoshop with ease, using Gaussian blur and layer transparency.



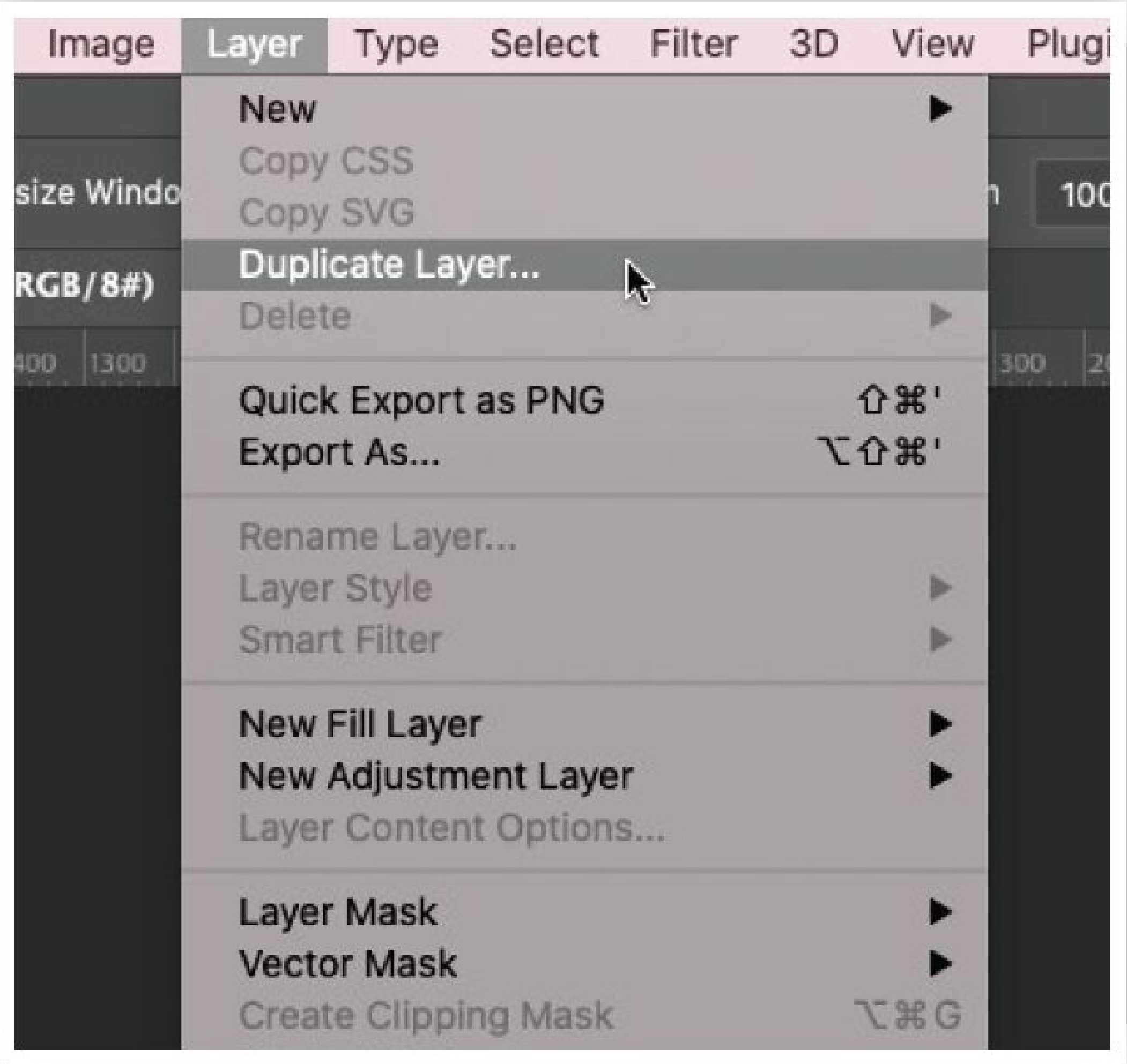
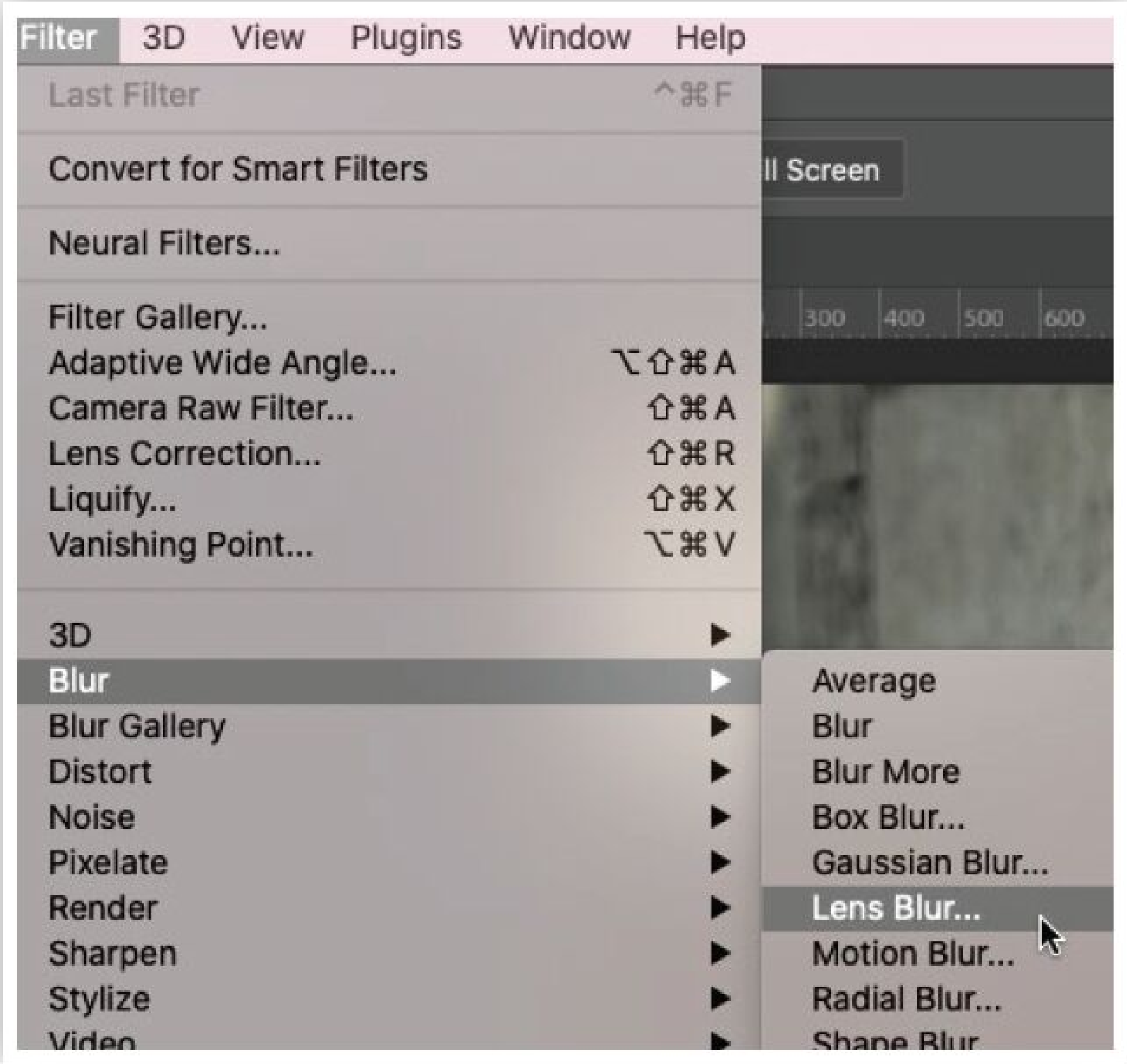
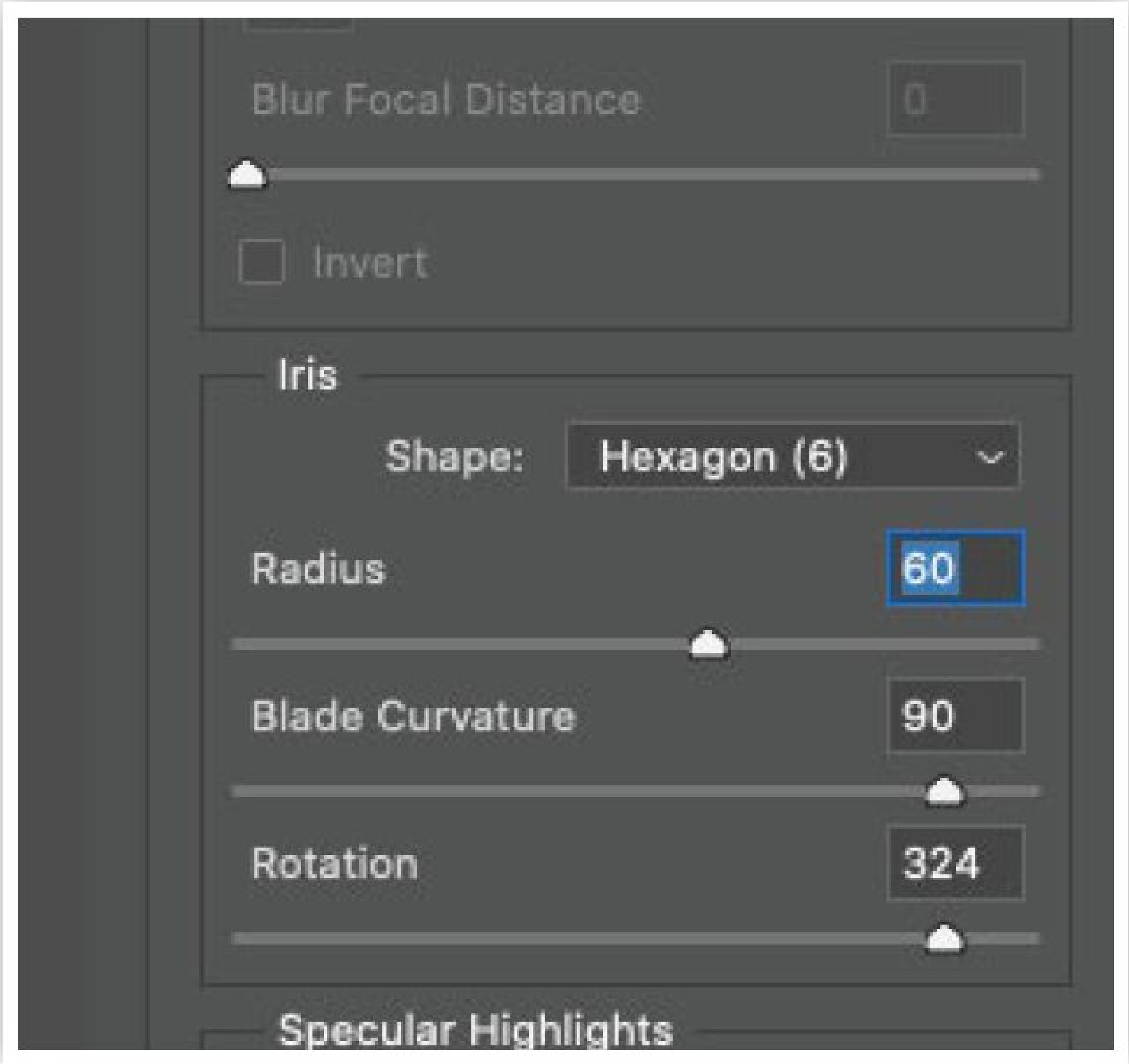


Image
Layer
Type
Select
Filter
3D
View
Plugi
New
Copy CSS
Copy SVG
Duplicate Layer...
Delete
Quick Export as PNG ⇧⌘'
Export As... ⌥⇧⌘'
Rename Layer...
Layer Style
Smart Filter
New Fill Layer
New Adjustment Layer
Layer Content Options...
Layer Mask
Vector Mask
Create Clipping Mask ⌥⌘G


Filter
3D
View
Plugins
Window
Help
Last Filter ^⌘F
Convert for Smart Filters
Neural Filters...
Filter Gallery...
Adaptive Wide Angle... ⌥⇧⌘A
Camera Raw Filter... ⇧⌘A
Lens Correction... ⇧⌘R
Liquify... ⇧⌘X
Vanishing Point... ⌥⌘V
3D
Blur
Blur Gallery
Distort
Noise
Pixelate
Render
Sharpen
Stylize
Video
Average
Blur
Blur More
Box Blur...
Gaussian Blur...
Lens Blur...
Motion Blur...
Radial Blur...
Shape Blur



Blur Focal Distance: 0

☐ Invert

Iris

Shape: Hexagon (6)

Radius: 60

Blade Curvature: 90

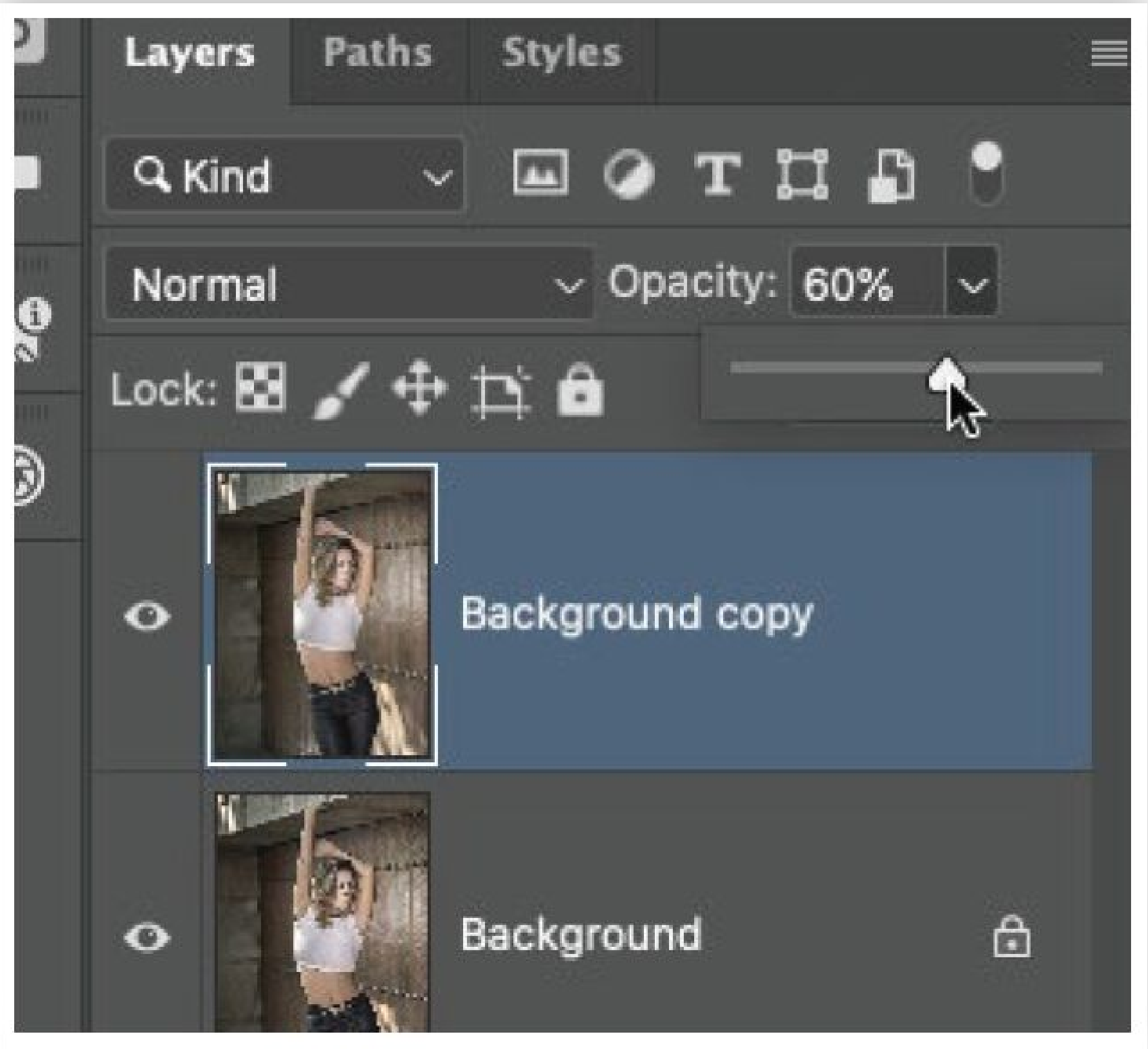
Rotation: 324

Specular Highlights

01 The first step is to turn the picture into two identical layers. To do this, go to the Layer menu and select Duplicate Layer. Don't worry about naming this layer, it's the only one we're going to make.

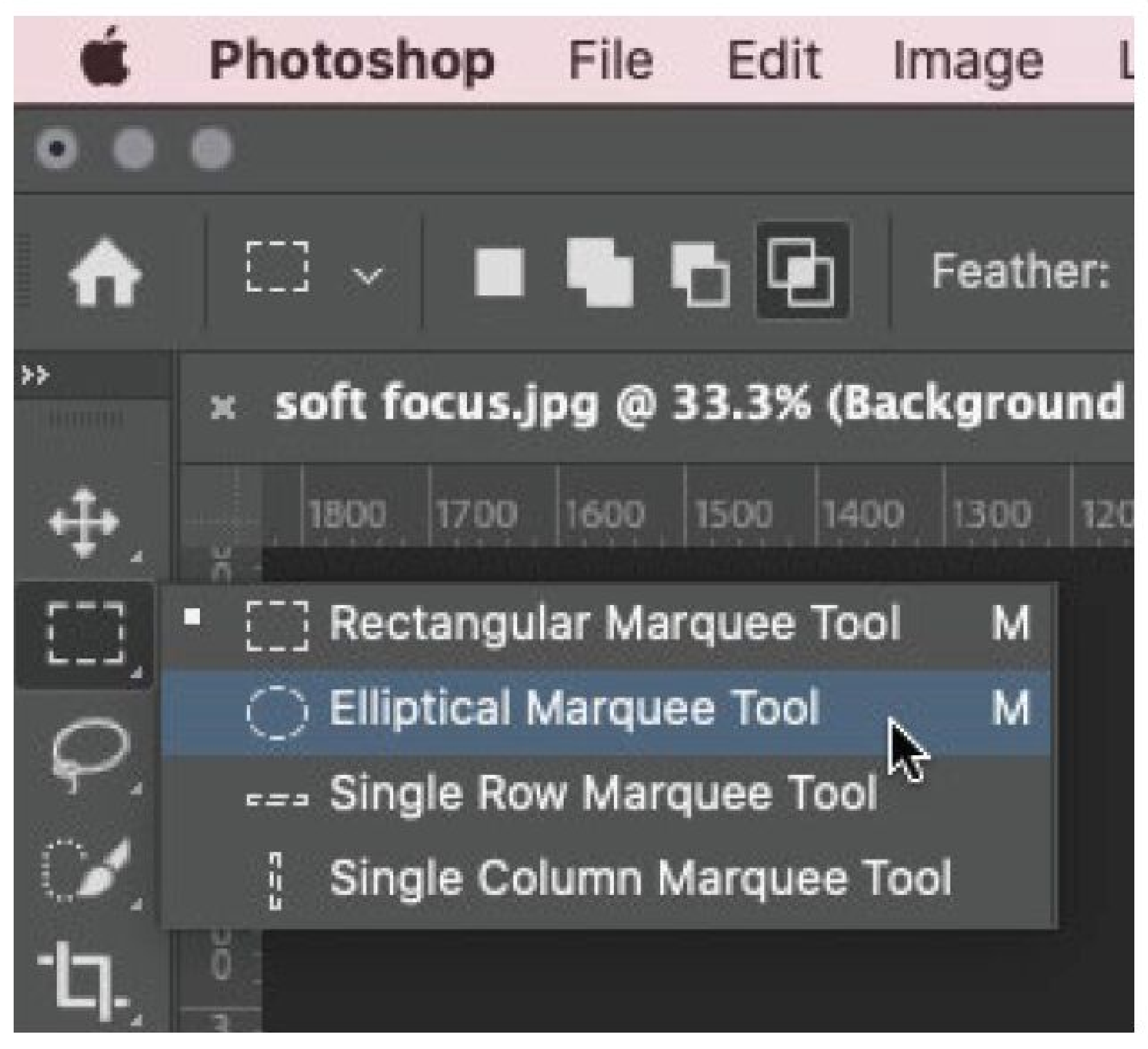
02 Next, go to the Filter menu, move down to Blur, and select Lens Blur. This is a special type of blurring that can be adjusted to produce certain effects. It most closely resembles a photographic lens blur.

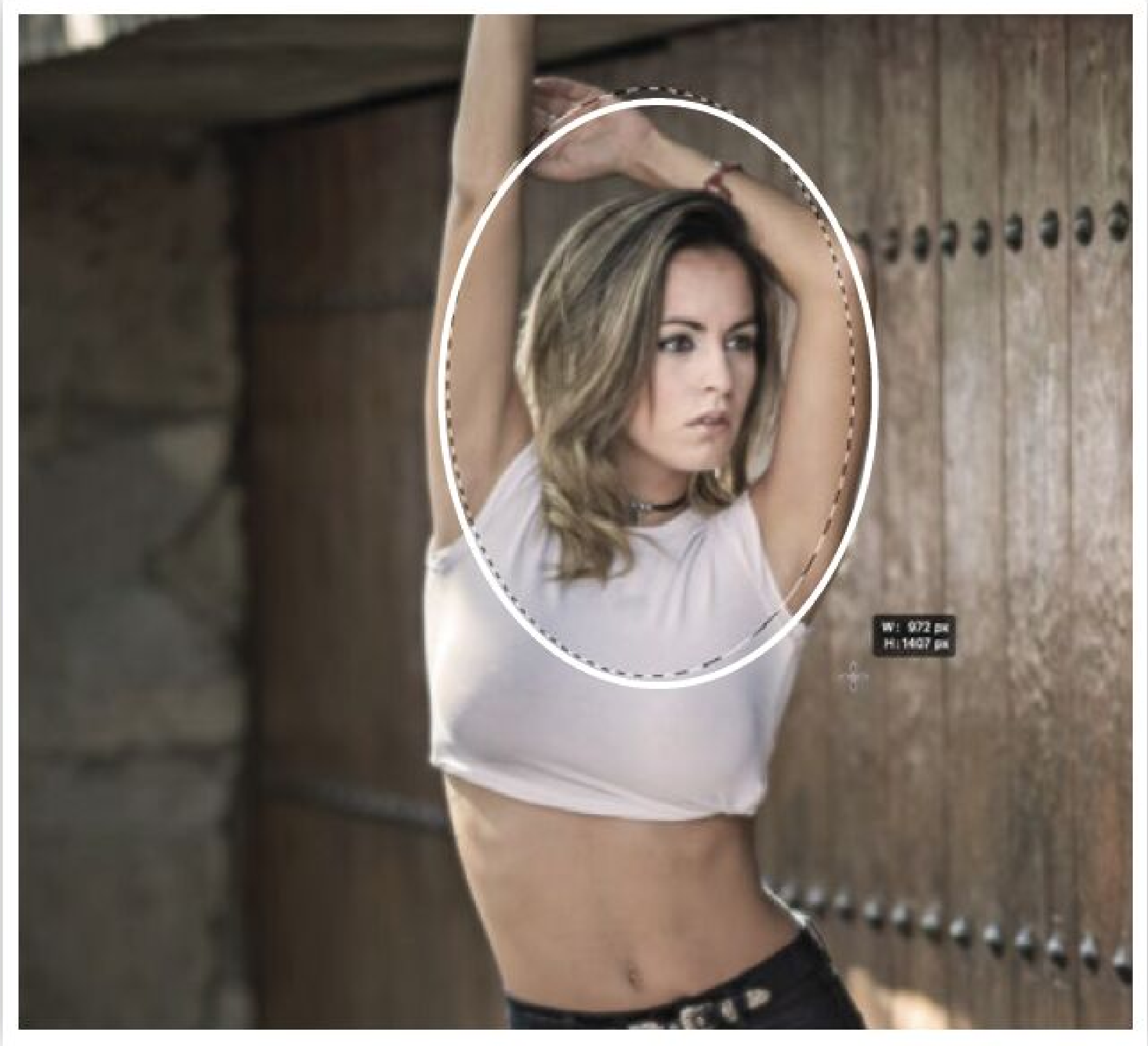
03 We don't need very much blurring to produce the soft-focus effect, so for this portrait shot, set a radius of 60 pixels. You may need a smaller radius for smaller images, but keep it subtle.


Layers
Paths
Styles
Kind
Lock:
Background copy
Background

Normal

Opacity: 60%

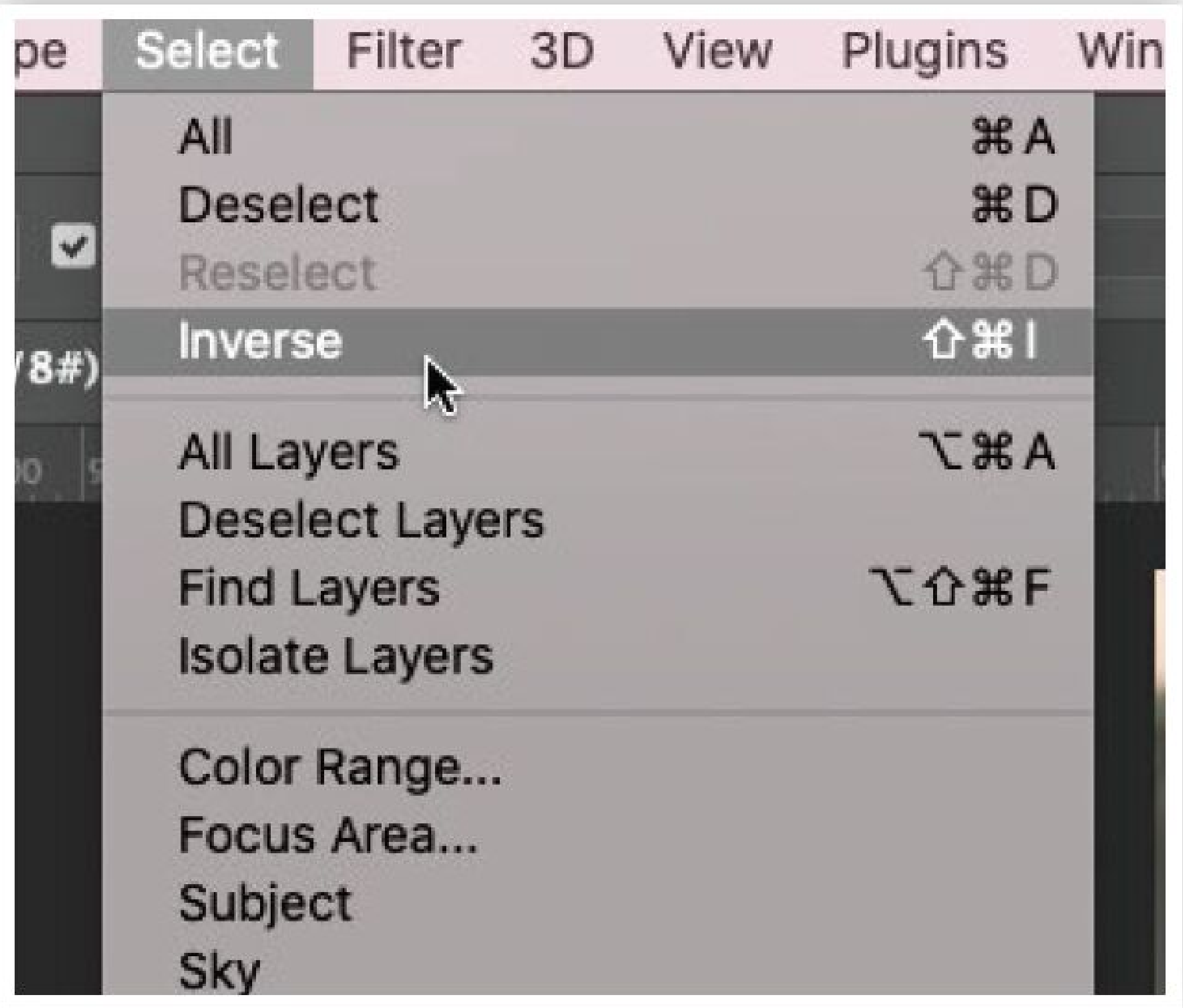

Photoshop
File
Edit
Image
Feather:
soft focus.jpg @ 33.3% (Background
Rectangular Marquee Tool M
Elliptical Marquee Tool M
Single Row Marquee Tool
Single Column Marquee Tool

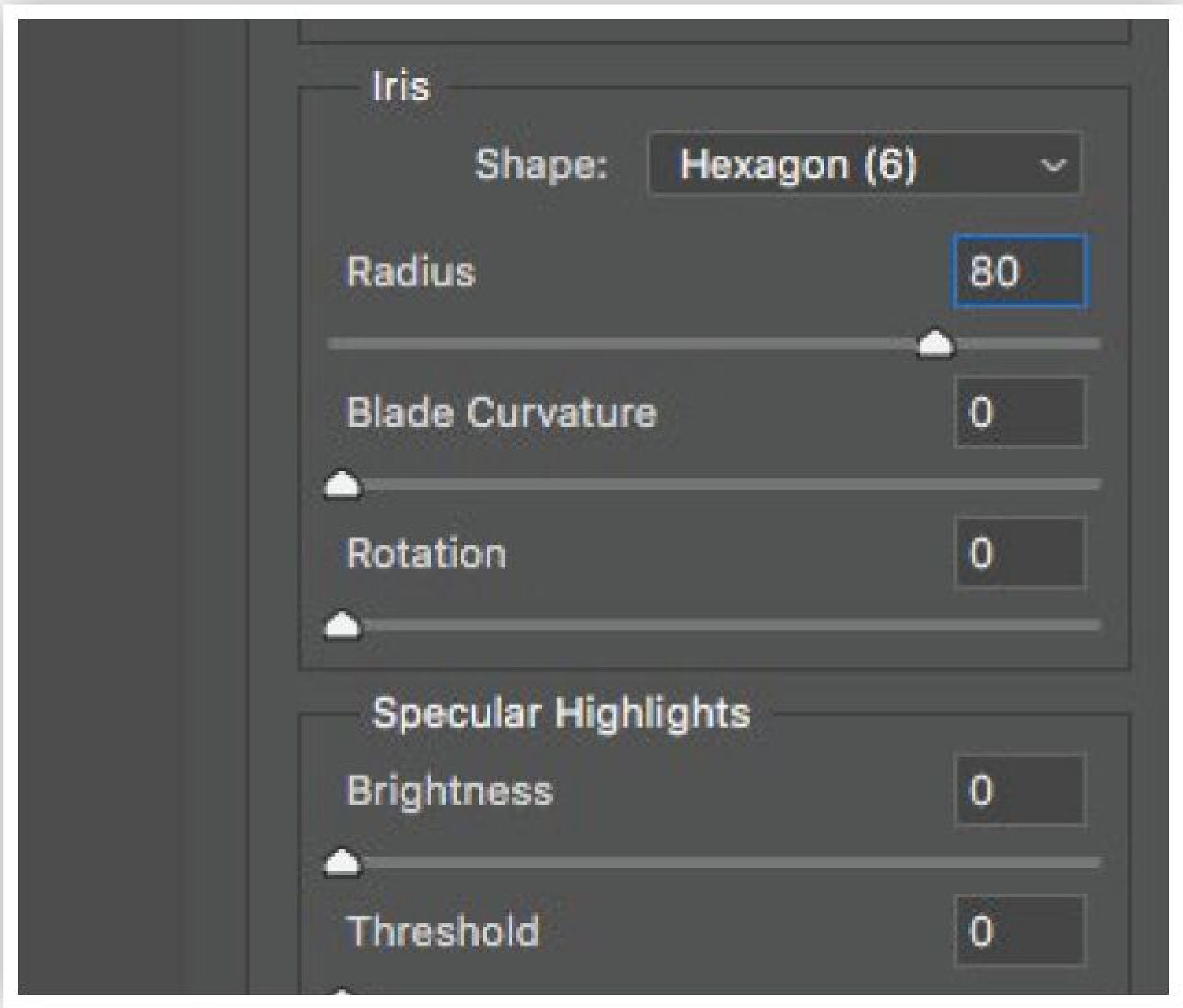


04 In the Layers palette, set the transparency of the blurred layer to between 80 - 60 percent. This lets the still sharp lower layer show through, mitigating the effects of the Gaussian blur. If you feel it is too blurred, you can drop the Opacity down to about 50 percent.

05 We can further enhance the look of the picture by adding an elliptical vignette of further blurring around the subject. This is a technique that portrait photographers have been using almost since the invention of photography. First, select the Elliptical Marquee Tool.

06 Drag an elliptical marquee selection around the portrait subject. This may take a few tries to get right, so use Cmd+D to de-select if you get it wrong. When you're happy with it, go to Select > Modify > Feather. Set a radius of about 50-60 pixels.


pe
Select
Filter
3D
View
Plugins
Win
All ⌘A
Deselect ⌘D
Reselect ⇧⌘D
Inverse ⇧⌘I
All Layers ⌥⌘A
Deselect Layers
Find Layers ⌥⇧⌘F
Isolate Layers
Color Range...
Focus Area...
Subject
Sky



Iris

Shape: Hexagon (6)

Radius: 80

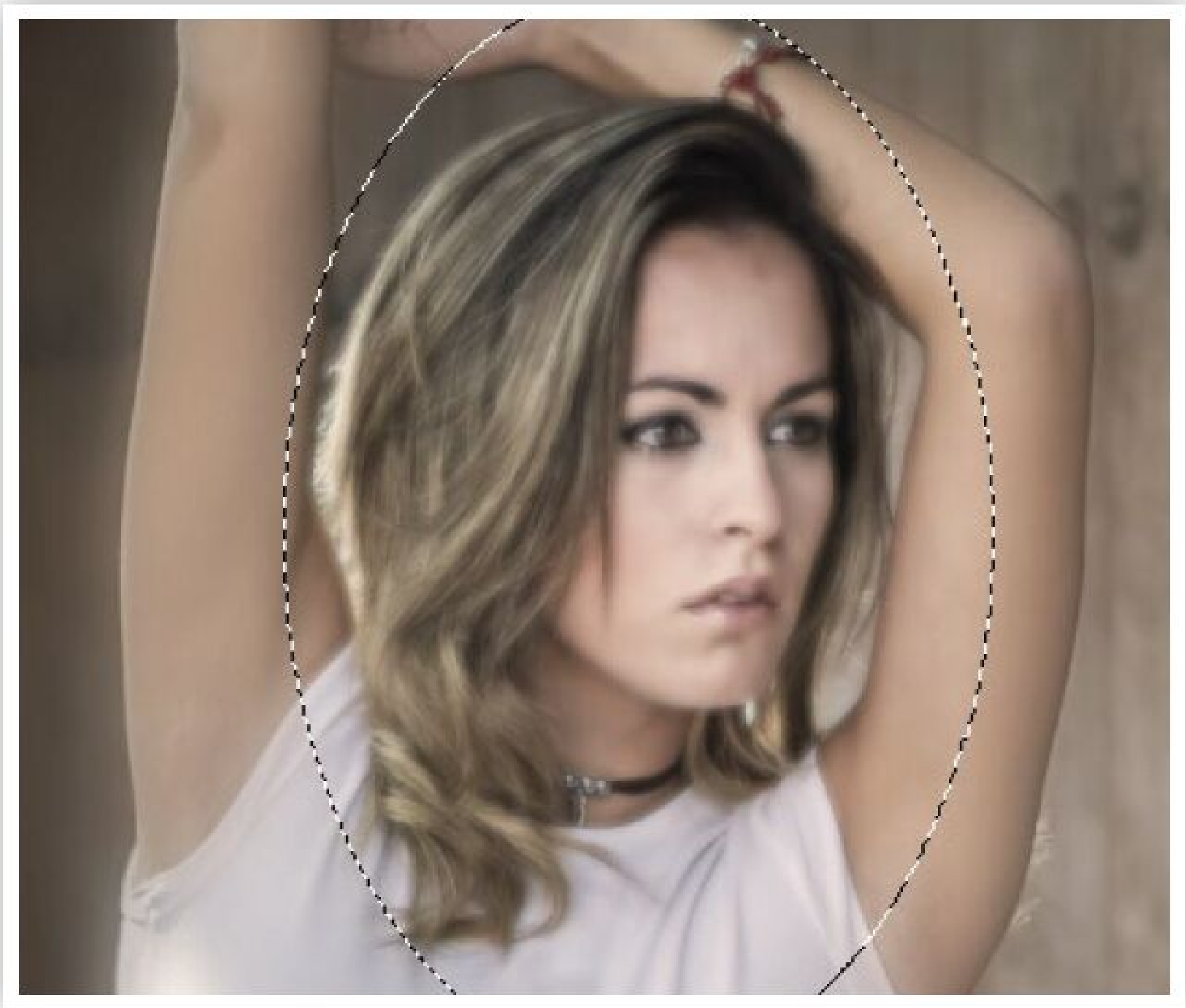
Blade Curvature: 0

Rotation: 0

Specular Highlights

Brightness: 0

Threshold: 0



07 Next, select Inverse from the Select menu to change the selection so that everything outside the ellipse is selected.

08 Now add a Lens blur filter to the selection, giving it a much bigger radius than before; around 80 pixels should do the job.

09 One final option is to use a soft eraser and erase areas of the blurred layer around your subject's face to keep it sharp if you prefer.

Save a whopping

25% Off!

Photography & Photoshop Manuals

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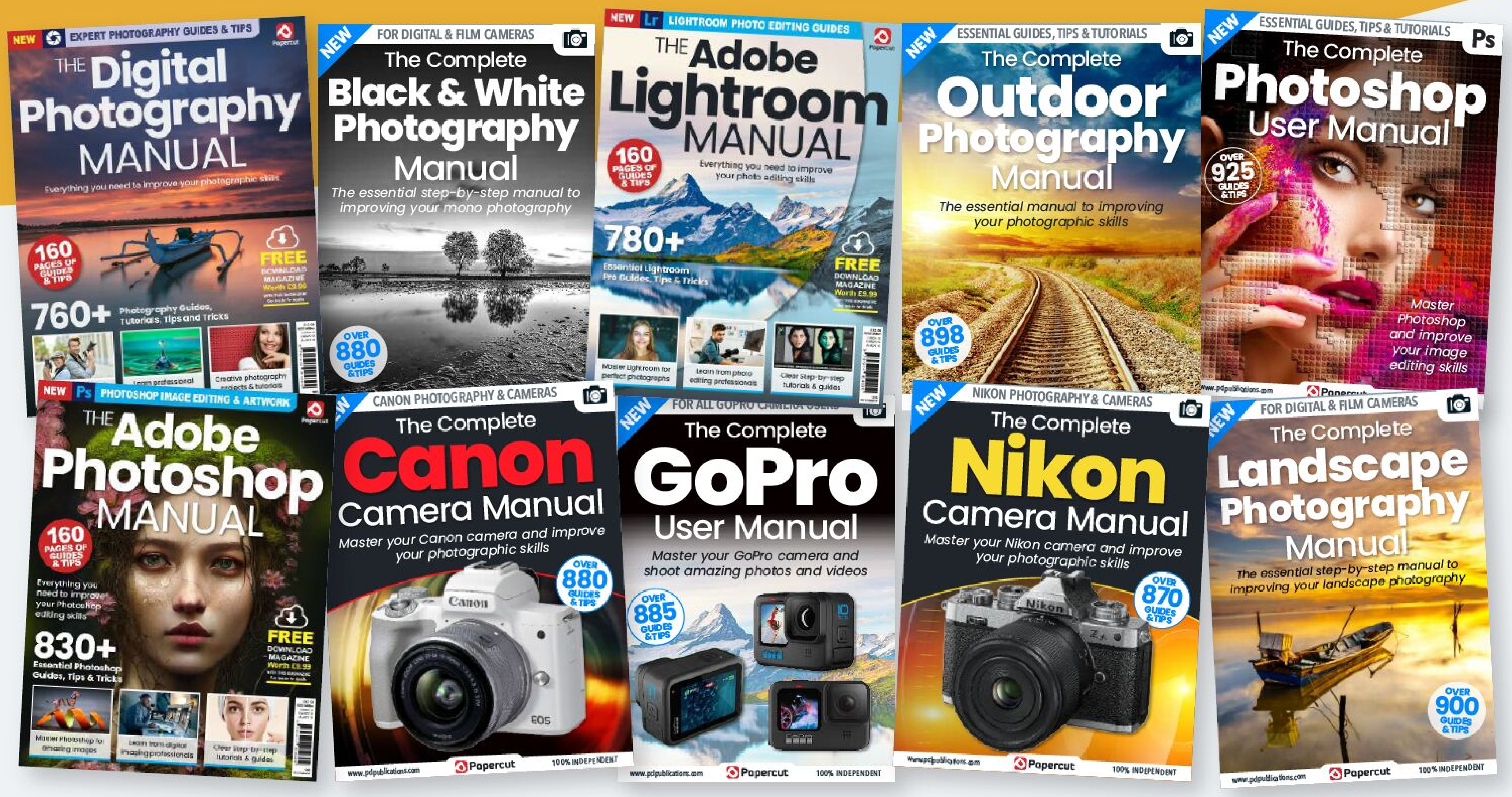
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The Complete Black & White Photography Manual
The Adobe Lightroom Manual
The Complete Outdoor Photography Manual
The Complete Photoshop User Manual
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